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BENJAMIN

WIRELESS CLUSTERS & LIGHTING SPECIALTIES

CATALOG

B-20



BENJAMIN ELECTRIC MFG. CO.

CHICAGO · · · · · NEW YORK
SAN FRANCISCO



BENJAMIN ELECTRIC MFG. CO.

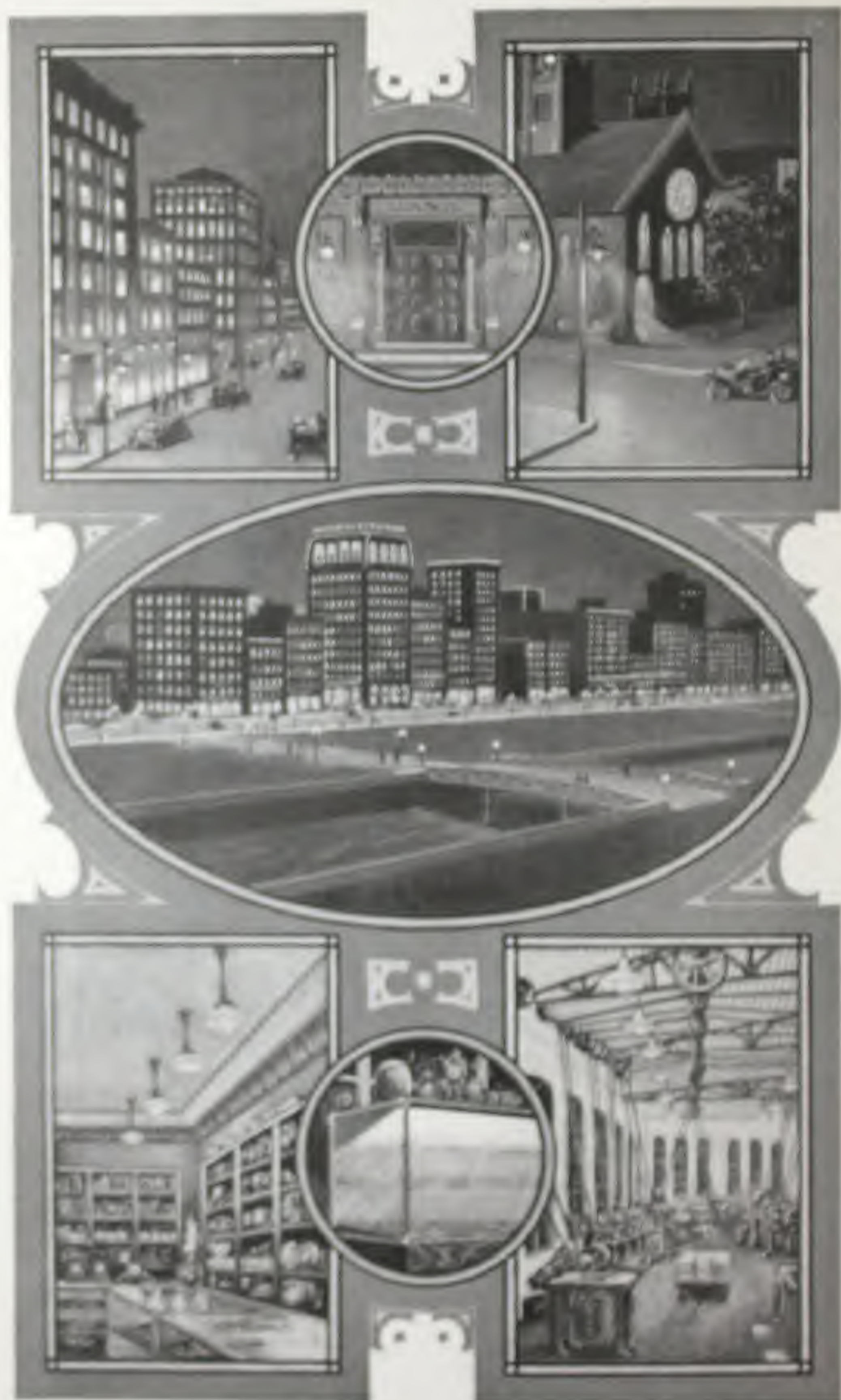
MANUFACTURERS

WIRELESS CLUSTERS *and*
LIGHTING SPECIALTIES

CATALOG B-20

SEPTEMBER, 1912

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1912



BENJAMIN FIXTURES AND LIGHTING SPECIALTIES IN SERVICE

INTRODUCTORY



THE growth of the lighting industry, the additions and new adaptations of our particular line of products, make periodic catalogs a commercial necessity.

B-20 brings to the trade in a revised single volume, the essential devices listed in previous catalogs and succeeding bulletins, together with the most recent new articles of our manufacture. Chief among the latter are our single unit ceiling fixtures, street car fixtures, porcelain-lined twin sockets, lever and pull angle sockets, and ceiling and pendent lock guards.

Suitable guide indexes may be found on pages 74 to 78, inclusive.

Trade discounts applying to list prices and special information will be furnished on application.

September, 1912.

PATENTS

Benjamin Wireless Clusters and Lighting Specialties are covered by numerous United States and Foreign Patents and Pending Applications, under which they are manufactured at the Company's Factories, 120-128 South Sangamon Street, Chicago, Illinois, by the Benjamin Electric Mfg. Co. of Canada, Ltd., 11-17 Charlotte Street, Toronto, Canada, and by the Benjamin Electric, Ltd., 1a Rosebery Avenue, E. C., London, England.

INDUSTRIAL ILLUMINATING DATA

Good illumination now costs about $\frac{1}{2}$ of 1 per cent of the average man's wages. His efficiency has without question been raised many times this amount. What was once indifferently or by way of concession considered an expense beyond control, is now regarded as an investment to be made productive in the added comfort and increased output of the operator. This change is the contribution of the illuminating engineering profession to modern industrialism.

As originators and designers of a meritorious lighting system, the Benjamin Electric Mfg. Co. have developed a unique line of industrial devices in the way of reflector sockets and cluster fixtures. They are built up around three general styles of reflectors, each of which offers a particular type of light distribution and occupies a particular place in the lighting field. A brief survey of the principal forms with suggestions regarding their application may be in order.

The **deep bowl type** of reflector is the one having the most common proper application for low ceilings. It reflects a large percentage of the light in directions where it is useful, and of the three types allows the least to be directed to the walls. It also has the advantage of shading or shielding the lamps from the eyes of persons looking the length of a shop. Mounting height should be about $\frac{1}{2}$ the distance between outlets.

The **shallow bowl type**, is intermediate between the flat cone and the deep bowl types. It gives a somewhat wider distribution of light than the deep bowl type, but does not thoroughly shade the lamp. It gives more light direct from the lamps, and less by reflection, and is therefore more efficient. It allows more light to go to the walls than the deep bowl type. This in some cases may be an advantage, as for example, where it is desirable to obtain a diffused light by reflection from a light colored wall, in order to light around and under machinery. This type is well suited for moderately high ceilings. Mounting height should be about $\frac{2}{3}$ of the distance between outlets.

The **flat cone type** of reflector does not shield the lamp from the eyes at all. Nevertheless, there are places, such as railroad platforms and warehouses, where one unit must be used to light over a large area even though the lamp is unshielded. For such places the flat cone reflector is adapted. It saves and utilizes the light which otherwise would go upward. Mounting height for indoor service should be about $\frac{3}{4}$ of the spacing distance.

TYPES OF REFLECTORS



Distribution Curves of White Enameled Steel Reflectors

GENERAL INFORMATION

Although individual lamps over machines must be used in some cases, the general tendency at present is to produce a good general illumination all over the shop. This has the advantage, first, that it reduces the possibility of accidents in dark places where workmen cannot see clearly; second, that it gives a better light on the work at any one point, because it is always desirable to have light falling upon work from as many different directions as possible. When working by daylight, the light comes from a large area of sky, and by reflection from walls and ceilings. This is the most comfortable kind of light by which to work.

In view of the foregoing, low ceilings, instead of having a very few outlets with large lighting units, should have more outlets with units of smaller size in each, making the total candle power of all the lamps the same in each case. The lower the ceilings, the smaller should be the units and the greater the number of outlets. With very high ceilings large cluster units may be used to advantage. This applies especially to fixtures hung over cranes. If the outlets are placed far apart, and large units are used at each outlet with low ceilings, there will be too much light near each outlet, and insufficient light between.

Where the lighting circuit is 220 volts or higher, it is advantageous to use cluster units requiring two or more lamps in series. For example, on a 220-volt circuit, four 110-volt lamps may be used when the sockets of the cluster are connected up series-multiple.

Intensity of illumination required, measured in foot-candles, varies as in the following table:

Factories	Foot-Candles	Schools	Foot-Candles
General illumination only, where additional special illumination of each bench or machine is provided	1.5	Study Room	2.5
Bench illumination	4.0	Assembly Room	2.0
Machine Shops—No local illumination	7.0	Corridor	.8
Foundries	3.0	Manual Training	3.0
Pattern Shops	3.0	Sewing Rooms (Light Goods)	4.0
Power Houses	2.5	Sewing Rooms (Dark Goods)	8.0
Press Rooms	4.0	Shipping Rooms	1.5
Schools—Class Room	2.5	Stations (Railroad)	2.0
		Stores	3.0 to 5.0
		Train Sheds	1.0
		Type Setting	8.0
		Warehouses	1.5

EFFICIENT ILLUMINATION CONSTANTS OF REFLECTORS

Type of Reflector	Ceiling	Walls	Constant
Enameled Steel Bowl Type	Light	Light	4.3
" " " "	Light	Dark	3.4
" " " "	Dark	Dark	2.8

In general, the amount of illumination may be obtained by the following equation:

$$\frac{\text{Area to be lighted} \times \text{intensity in foot-candles}}{\text{Efficient illuminating constant of reflector}} = \frac{\text{Watts required to light given area.}}{\text{area.}}$$

By dividing this final result by the number of outlets, the wattage of each individual unit may be determined; from pages 22 to 26 inc., the correct type of reflector may be found. With lamps and reflectors clean, roughly 4 foot-candles, average illumination, will result for each watt per square foot under the foregoing conditions. From the standpoint of both appearance and efficiency, it is necessary that lamps and reflectors be kept clean. It is a well known fact that the intensity of illumination is lowered from 10 to 50 per cent by the use of units upon which dirt has accumulated.

INSTRUCTIONS FOR ORDERING

In Ordering, use catalog number with letter, when given.

Stem Wires will be furnished at list price of 25c for the first foot, and 10c for each additional foot. Wires for standard chain fixtures found on pages 29 and 32, list at 40c. Neither wire nor lamps are included in the prices quoted unless particularly mentioned. Except where specially indicated, devices for the reception of lamps are furnished in Edison medium screw base. Fixtures are regularly shipped unassembled.

Standard Stem, except where otherwise specified, is 8" x $\frac{5}{8}$ " brass tubing. Special lengths not exceeding 12" will be furnished without additional charge; extra lengths in excess of 12" at 30c per foot list. For stems above 48", the use of $\frac{3}{8}$ " iron pipe and $\frac{3}{4}$ " brass casing is recommended, but will be furnished only when ordered. Where desired instead of the standard $\frac{5}{8}$ " brass tubing, add 20c list to price of fixture for lengths of 12" or less; for additional lengths, 50c per foot list. Stems consisting of $\frac{1}{2}$ " iron pipe and 1" brass casing list at 70c per foot.

Standard Finish, except where otherwise specified, is polished brass. Where no other specific price is given for special finishes, brushed (old) brass, dead black (Bauer-Barff), or aluminum metal for weather-proof fixtures, will be furnished without additional charge; nickel or copper finishes at an increase of 10 per cent list; silver or verde antique, and white or black enamel, at an increase of 20 per cent list, exclusive of glassware. Prices on other finishes may be secured on application. Goods with special finish are not regularly carried in branch office stock, and will be shipped from these offices or from the Chicago factory at our option.

For Protection and Convenience in Handling, cluster bodies are packed (1) singly in individual pasteboard folding boxes; (2) ten folding boxes in a pasteboard carton.

Weights Given are approximate net weights in pounds. They do not include wrapping, packing or boxing.

Goods are Shipped at the purchaser's risk. Our responsibility ceases when they have been received in good condition by the transportation company. In no case are they to be returned without our consent.

Prices are f. o. b. Chicago, New York, or San Francisco, where goods are regularly carried in stock.

Terms are 30 days net, or 2% cash, 10 days, where parties are known or furnish satisfactory references. Otherwise remittance should accompany order.

Previous Quotations are hereby withdrawn.

**Benjamin Wireless Clusters and Lighting Specialties are
for sale by all jobbers and dealers in electrical supplies**

**SCHEDULE I
SECTION I**



**MAKE ONE SOCKET
DO THE WORK
OF TWO**



**CLUSTER
BODIES
PLUG
CLUSTERS**

CLUSTER BODIES

NATIONAL ELECTRICAL CODE STANDARD

Fibre Lined Multiple Edison Base

THE Wireless Clusters, Types 1 and 1K, consist essentially of (1st) two one-piece contact plates, each of which is provided with a binding screw and serves the corresponding lamp terminals; (2d) an insulating porcelain base to which the plates are attached; (3d) a detachable shell of brass or aluminum supported by especially

designed porcelain rings or bushings. Types 5 and 5K are separable, consisting of two principal parts so connected that the body or finished portion may be attached or removed without disturbing the wiring connections. K Type clusters regularly have 3-wire connection for operating either center lamp only, side lamps only, or all lamps in an undivided group. The usual 2-wire connection may be obtained by bridging the center and outer contacts. Prices include flange tapped for $\frac{3}{8}$ " iron pipe. For other flanges see page 67. Standard finish is polished brass. Aluminum metal shell may be ordered with Types 1 and 1K without change in price.



Type 1—Diam. 4". Cat. No. 15



Type 1K—Diam. 4". Cat. No. 16K



Type 5—Diam. 4". Cat. No. 56



Type 5K—Diam. 4". Cat. No. 56K

Cat. No.	TYPE 1	List Price	Std. Plg.	Wt. Lbs.
12	2-Light	\$1.60	10	12
13	3 "	1.85	10	12
14	4 "	2.10	10	12
15	5 "	2.35	10	12
16	6 "	2.60	10	12

TYPE 1K

13K	3-Light	\$1.85	10	12
14K	4 "	2.10	10	12
15K	5 "	2.35	10	12
16K	6 "	2.60	10	12
17K	7 "	2.85	10	12

Types 1 and 1K have three supporting screw holes equally spaced on a circle of $3\frac{3}{16}$ " in diameter.

TYPE 5

52	2-Light	\$1.60	10	6
53	3 "	1.85	10	6
54	4 "	2.10	10	6
55	5 "	2.35	10	6
56	6 "	2.60	10	7

TYPE 5K

53K	3-Light	\$1.85	10	6
54K	4 "	2.10	10	6
55K	5 "	2.35	10	6
56K	6 "	2.60	10	6
57K	7 "	2.85	10	7

Types 5 and 5K have two supporting screw holes spaced $1\frac{3}{4}$ " on centers.

SCHEDULE 1 DISCOUNTS apply to all materials listed above

CLUSTER BODIES

NATIONAL ELECTRICAL CODE STANDARD

Fibre Lined Multiple Edison Base

THE Wireless Clusters, Types 8, 2, and 7, are fundamentally like Types 1 and 1K described on page 10. Type 7 is provided with indicating single pole snap switch. This switch is furnished with a metal key which is unaffected by the heat of the lamps. Harter clusters are made of opal glass, into which copper contacts are cast. They have bushing with $\frac{1}{2}$ " male and $\frac{3}{8}$ " female thread. For flange to be used with special metal reflectors listed page 70, or with No. 500 sub-base and opal reflectors, add 10 cents list. Prices on Benjamin clusters include flange tapped for $\frac{3}{8}$ " iron pipe. For other flanges see page 67. Standard finish is polished brass.



Type 8—Diam. $2\frac{1}{2}$ "
Cat. No. 82

Cat. No.	TYPE 8	List Price	Std. Pkg.	Wt. Lbs.
82	2-Light	\$1.00	10	6



Type 2—Diam. 3"
Cat. No. 23

	TYPE 2			
22	2-Light	\$1.35	10	7
23	3 "	1.60	10	7

Types 8 and 2 have two supporting screw holes spaced $1\frac{3}{4}$ " on centers.



Type 7—Diam. 4"
Cat. No. 76

	TYPE 7			
72	2-Light	\$2.60	10	14
73	3 "	2.85	10	14
74	4 "	3.10	10	14
75	5 "	3.35	10	14
76	6 "	3.60	10	14

Type 7 has three supporting screw holes equally spaced on a circle of $3\frac{5}{16}$ " in diameter.



Harter—Diam. $4\frac{1}{4}$ "
Cat. No. 14424

	HARTER			
14422	2-Light	\$1.60	10	15
14423	3 "	1.85	10	15
14424	4 "	2.10	10	15
14425	5 "	2.35	10	15
14426	6 "	2.60	10	15

SCHEDULE I DISCOUNTS apply to all materials listed above

CLUSTER BODIES

NATIONAL ELECTRICAL CODE STANDARD

Fibre Lined Multiple Edison Base

THE following Wireless Clusters have socket outlets at an angle especially adapting them for a close grouping of lamps. With the first three, the degrees are given showing the angle with the vertical. Types 3 and 3K may be used to advantage with glass balls or domes. Type 3T is designed for metal filament lamps. Prices include flange tapped for $\frac{3}{8}$ " iron pipe. Type 600 consists of a brass metal shell provided with porcelain receptacles of special design. The sockets may be connected either multiple or series. Standard finish is polished brass.



Type 3—Diam. $3\frac{1}{4}$ "
Socket Angle 16°
Cat. No. 32

Cat. No.	TYPE 3	List Price	Std. Pkg.	Wt. Lbs.
32	2-Light	\$1.60	10	7
33	3 "	1.85	10	7
32 $\frac{1}{2}$	2 " (Series)	1.60	10	7

Type 3 has two supporting screw holes spaced $1\frac{3}{4}$ " on centers.



Type 3T—Diam. $4\frac{1}{2}$ "
Socket Angle 18°
Cat. No. 34T

Cat. No.	TYPE 3T	List Price	Std. Pkg.	Wt. Lbs.
32T	2-Light	\$1.75	10	12
33T	3 "	2.00	10	13
34T	4 "	2.25	10	14
35T	5 "	2.50	10	14
36T	6 " (24°)	2.75	10	14



Type 3K—Diam. $4\frac{1}{2}$ "
Socket Angle 24°
Cat. No. 37K

Cat. No.	TYPE 3K	List Price	Std. Pkg.	Wt. Lbs.
33K	3-Light	\$2.00	10	13
34K	4 "	2.25	10	14
35K	5 "	2.50	10	14
36K	6 "	2.75	10	14
37K	7 "	3.00	10	14

Types 3T and 3K have three supporting screw holes equally spaced on a circle of $3\frac{5}{16}$ " in diameter.



Type 600—Diam. $6\frac{1}{4}$ "- $11\frac{3}{4}$ "
Cat. No. 608

Cat. No.	TYPE 600	List Price	Std. Pkg.	Wt. Lbs.
608	8-Light, $6\frac{3}{4}$ "	\$5.00	10	25
610	10 " $8\frac{3}{4}$ "	5.60	10	31
612	12 " $8\frac{3}{4}$ "	6.20	10	35
615	15 " $11\frac{3}{4}$ "	8.00	10	50
620	20 " $11\frac{3}{4}$ "	10.00	10	65

SCHEDULE I DISCOUNTS apply to all materials listed above

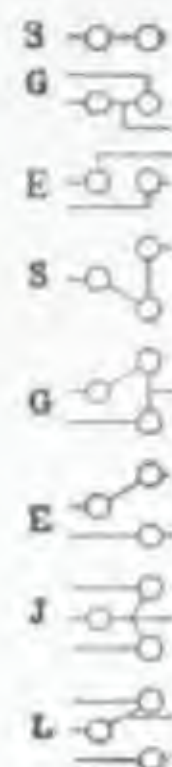
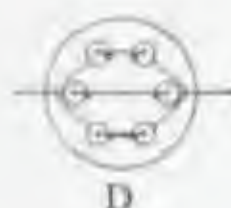
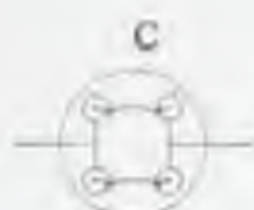
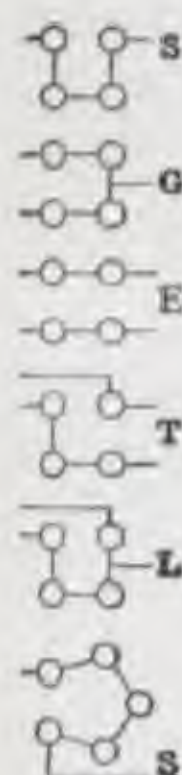
CLUSTER BODIES

NATIONAL ELECTRICAL CODE STANDARD

Fibre Lined

Series

Edison Base



Type 2 1/2—Diam. 3"
Cat. No. 22 1/2



Type 1 1/2—Diam. 4"
Cat. No. 15 1/2



Type 3 1/2 T—Diam. 4 1/2"
Cat. No. 34 1/2 T

THE following Series Wireless Clusters have their contact plates made in sections. The inner and outer plates overlap each other, thus connecting the lamps in series without wires. Contacts of different potential are widely separated. They are regularly furnished without flange, but 3/8" steel flange may be specified without additional charge. "S" connections are standard. Series-multiple and other special connections shown in the above diagrams are subject to an advance of 10c list. Standard finish is polished brass.

Cat. No.	TYPE 2 1/2	List Price	Std. Pkg.	Wt. Lbs.
22 1/2	2-Light	\$1.60	10	8
23 1/2	3 "	1.85	10	8

Type 2 1/2 has two supporting screw holes spaced 1 3/4" on centers.

Cat. No.	TYPE 1 1/2	List Price	Std. Pkg.	Wt. Lbs.
12 1/2	2-Light	\$1.60	10	13
13 1/2	3 "	1.85	10	13
14 1/2	4 "	2.10	10	13
15 1/2	5 "	2.35	10	13

Cat. No.	TYPE 3 1/2 T	List Price	Std. Pkg.	Wt. Lbs.
32 1/2 T	2-Light	\$1.75	10	12
33 1/2 T	3 "	2.00	10	13
34 1/2 T	4 "	2.25	10	14
35 1/2 T	5 "	2.50	10	14

Types 1 1/2 and 3 1/2 T have three supporting screw holes equally spaced on a circle of 3 7/16" in diameter.

SCHEDULE I DISCOUNTS apply to all materials listed above

PLUG CLUSTERS

The following Plug Clusters are designed for increasing the number of outlets of a given single socket. Any combination of lamps or attachment plugs may be employed. They obviate the necessity of extra wiring, are therefore serviceable for attaching household electrical devices, such as portable lamps, flatirons, fans, etc. The series plug may be used to advantage for operating two 110-volt lamps in series on 220-volt circuits. Standard finish is polished brass.



Cat. No. 92

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
92	2-Light Multiple	\$1.00	10	4
92 1/2	2 " Series	1.00	10	4
93	3-Light Multiple	\$1.30	10	6
94	4 " "	1.60	10	6



Cat. No. 94

BATTERY CHARGING PLUGS

The following Battery Charging Plugs may be used with any medium screw base Edison socket. With 16 C. P. carbon lamps a battery may be charged at a maximum rate of 1/2 ampere per lamp; with 32 C. P. carbon lamps, at a maximum rate of 1 ampere per lamp. For lamp cord add 20c per yard list. Standard finish is polished brass.



Cat. No. 93B

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
92B	2-Light	\$1.00	10	6
93B	3 "	1.30	10	6
94B	4 "	1.60	10	7

SCHEDULE I DISCOUNTS apply to all materials listed above



**SCHEDULE I
SECTION II**



**WIRELESS
CLUSTER
FIXTURES**



WEATHER-PROOF FIXTURES

Multiple

THE following Weather-proof Fixtures consist of Type 1 aluminum shell cluster, 15" enameled steel reflector, and flange tapped for 1/2" iron pipe. The latter is bolted to the cluster back, and the reflector between is protected by a split rubber gasket. The pendent forms have standard 8" stem and separable suspension fitting. For fitting No. 6031 with porcelain wire openings, add 30c list. Gooseneck forms are furnished with 36" of 1/2" iron pipe overhanging 30", and wall or pole fitting. Unless otherwise specified, wall fitting is regularly supplied. Iron parts are galvanized. Socket shells are of copper. For 3/4" instead of 1/2" gooseneck overhanging 40", and pole fitting, add 40c list. For 14" aluminum or tin reflectors to be used instead of 15" enameled steel, see page 70; for cluster bodies only, page 10; for fittings only, pages 64 and 65. Clusters used are National Electrical Code Standard.



Cat. No. 4015



Cat. No. 6015



Cat. No. 5015

Cat. No.	TYPE 1 BODY—CEILING			Last Price
4012	2-Light Multiple			\$3.50
4013	3 "	"	"	3.75
4014	4 "	"	"	4.00
4015	5 "	"	"	4.25
4016	6 "	"	"	4.50

	TYPE 1 BODY—PENDENT			
6012	2-Light Multiple			\$4.05
6013	3 "	"	"	4.30
6014	4 "	"	"	4.55
6015	5 "	"	"	4.80
6016	6 "	"	"	5.05

	TYPE 1 BODY—GOOSENECK			
5012	2-Light Multiple			\$4.40
5013	3 "	"	"	4.65
5014	4 "	"	"	4.90
5015	5 "	"	"	5.15
5016	6 "	"	"	5.40

For 2- and 3-light fixtures with Type 2 multiple cluster deduct 25c list. 2- to 5-light series fixtures may be ordered without change in price.

STANDARD PACKAGE consists of ten of one catalog number or assorted

SCHEDULE I DISCOUNTS apply to all materials listed above

PENDENT FIXTURES

Multiple — Interior

THE following first three groups of Pendant Cluster Fixtures consist of cluster body, 8"x 5/8" brass stem, 3 1/4" reflector holder, 14" opal reflector, 4 1/2"x 2 1/2" canopy, and crowfoot. The fourth group requires no holder, and has 15" enameled steel reflector. The fifth group has 2 1/4" holders and No. 2633 Holophane shades. For 14" aluminum or tin reflectors to be used instead of 15" enameled steel, see page 70; for cluster bodies only, page 10; for stems, canopies, and holders, pages 68 and 69. Clusters used are National Electrical Code Standard. Standard finish is polished brass.



Cat. No. 022P

Cat. No.	TYPE 8 BODY—OPAL REFL.	List Price
082P	2-Light.	\$2.50



Cat. No. 052P

Cat. No.	TYPE 2 BODY—OPAL REFL.	List Price
022P	2-Light.	\$2.85
023P	3 "	3.10

Cat. No.	TYPE 5 BODY—OPAL REFL.	List Price
052P	2-Light.	\$3.15
053P	3 "	3.40
054P	4 "	3.65
055P	5 "	3.90
056P	6 "	4.15

Cluster bodies, Types 5K, 1, or 1K, will be substituted for Type 5 if so ordered.



Cat. No. 015H

Cat. No.	TYPE 1 BODY—ENAM. STEEL REFL.	List Price
012H	2-Light.	\$4.05
013H	3 "	4.30
014H	4 "	4.55
015H	5 "	4.80
016H	6 "	5.05

Type 7 body with snap switch may be ordered instead of Type 1 at an advance of \$1.00 list.



Cat. No. 052V

Cat. No.	TYPE 5 BODY—HOLOPHANE SHADES	List Price
052V	2-Light.	\$3.95
053V	3 "	5.05
054V	4 "	6.15
055V	5 "	7.25

Cluster bodies, Types 5K, 1, or 1K, will be substituted for Type 5 if so ordered.

STANDARD PACKAGE consists of ten of one catalog number or assorted

SCHEDULE I DISCOUNTS apply to all materials listed above

CEILING FIXTURES

Multiple — Interior

THE following first group of fixtures consists of cluster body, 14" opal reflector, and an adjustable sub-base. The latter may be attached directly to the ceiling or outlet box. It is also provided with a removable strap tapped for $\frac{3}{8}$ " iron pipe for connecting with insulating joint. For fixture less reflector deduct 60c list. The second and third groups have cluster body less flange, and 15" porcelain enameled steel reflector. Reflector is placed directly between the cluster back and ceiling. Rubber rings prevent its contact with metal parts. For flanges used with outlet boxes, see page 67. The fourth and fifth groups have ornamental sub-base with opal reflector and C. R. I. Globe respectively. For single unit fixtures see pages 27 and 28; for reflectors only, page 70; for cluster bodies only, pages 10 to 12; for sub-bases only, page 66. Clusters used are National Electrical Code Standard. Standard finish is polished brass.



Cat. No. 515P

Cat. No.	TYPE 1 BODY—OPAL REFL.	List Price
512P	2-Light.	\$2.70
513P	3 " "	2.95
514P	4 " "	3.20
515P	5 " "	3.45
516P	6 " "	3.70



Cat. No. 22H

Cat. No.	TYPE 2 BODY—ENAM. STEEL REFL.	List Price
22H	2-Light.	\$3.05
23H	3 " "	3.30



Cat. No. 322P

Cat. No.	TYPE 1 BODY—ENAM. STEEL REFL.	List Price
12H	2-Light.	\$3.30
13H	3 " "	3.55
14H	4 " "	3.80
15H	5 " "	4.05
16H	6 " "	4.30



Cat. No. 322P

Cat. No.	TYPE 2 BODY—OPAL REFL.	List Price
322	2-Light, 6" x 3 $\frac{1}{4}$ " No. 300 Base only	\$2.50
323	3 " 6" x 3 $\frac{1}{4}$ " No. 300 "	2.75
322P	2 " No. 300 Base, 14" Reflector	3.10
323P	3 " No. 300 " 14" "	3.35

Cat. No.	TYPE 3 BODY—C. R. I. GLOBE	List Price
332	2-Light, 9" x 6 $\frac{1}{2}$ " No. 303 Base only	\$4.00
333	3 " 9" x 6 $\frac{1}{2}$ " No. 303 "	4.25
332B	2 " No. 303 Base, 8" x 6 $\frac{1}{2}$ " Globe	5.20
333B	3 " No. 303 " 8" x 6 $\frac{1}{2}$ " "	5.45

STANDARD PACKAGE consists of ten of one catalog number or assorted

SCHEDULE I DISCOUNTS apply to all materials listed above

CAR CLUSTERS

Series — Interior

THE following Cluster Fixtures are especially designed for street car service. The first illustration, No. 22½, shows the cluster attached to the car ceiling without reflector. The first and second listed fixtures consist of cluster body less flange, and 15" enameled steel reflector with heavy fire porcelain enamel. The third and fourth fixtures have cluster body, sub-base, and 14" opal reflector. For neutralizing the jar of the car rubber gaskets preventing the contact of reflector with the metal parts are employed. Practical security against breakage is thus obtained. For 14" aluminum or tin reflectors to be used instead of 15" enameled steel, see page 70; for cluster bodies only or divided circuits, page 13; for sub-bases only, page 66; for single unit fixtures, page 60. Clusters used are National Electrical Code Standard. Standard finish is polished brass.



Cat. No. 22½

TYPE 2½ BODY—ENAM. STEEL REFL.

Cat. No.		List Price
22½H	2-Light	\$3.40
23½H	3 "	3.65



Cat. No. 15½H

TYPE 1½ BODY—ENAM. STEEL REFL.

12½H	2-Light	\$3.40
13½H	3 "	3.65
14½H	4 "	3.90
15½H	5 "	4.15



Cat. No. 223½P

TYPE 2½ BODY—OPAL REFL.

222½P	2-Light	\$2.80
223½P	3 "	3.05



Cat. No. 115½P

TYPE 1½ BODY—OPAL REFL.

112½P	2-Light	\$2.80
113½P	3 "	3.05
114½P	4 "	3.30
115½P	5 "	3.55

STANDARD PACKAGE consists of ten of one catalog number or assorted

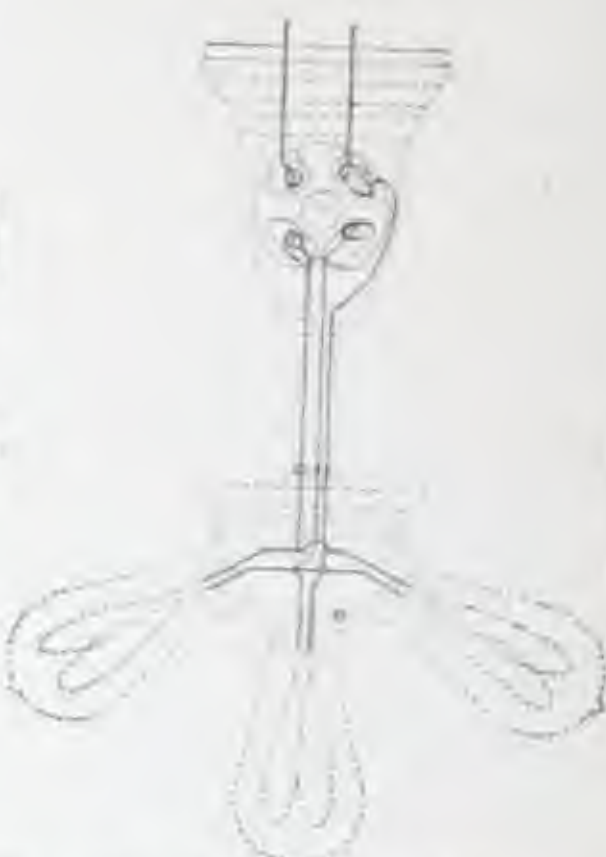
SCHEDULE I DISCOUNTS apply to all materials listed above

WIRELESS CLUSTER FIXTURES

SUPPLEMENTARY INFORMATION



Type 5K Cluster. Pendent Switch Connection Used with Types 1K and 5K



Grouping Switch with 3-Wire ("Y") Connection Extending through to Cluster



Type 5K Cluster. Bridged 2-Wire Connection Used with Types 1K, 3K, and 5K

Pendent Switch and one yard of lamp cord will be furnished at a list price of 70c. It may be used with all wireless clusters having no center lamp opening, except weather-proof forms. A removable cap at the bottom covers a bushed opening provided for accommodating the cord. Types 1 and 5 are provided with an additional binding plate with two binding screws, making it unnecessary to splice the wires in the body for extending the conductor to the switch.

"Turn-Down Feature" offering three degrees of illumination is incorporated in all type "K" clusters. It consists of a 3-wire connection with the necessary independent contact for the central socket, and permits the operation of either lower lamp only, side lamps only, or all lamps as a single unit. The last-named grouping is secured by bridging the center contacts A and B.

Series Connected Clusters may be ordered with pendent fixtures instead of type 2 or 1 multiple clusters, at type 1 multiple prices.

All Type 600 Bodies require stem. Nos. 608 to 612 inclusive are tapped for $\frac{3}{8}$ " pipe; Nos. 615 to 620 inclusive for $\frac{1}{2}$ " pipe. Bodies ranging from 8 to 15 outlets have all lights in the outer circle, and are furnished with removable cap to facilitate making connections; 20-light bodies have 15 in the outer circle, and 5 in the bottom. The sockets may be connected in any manner.

Cluster Bodies, except Type 600, may be attached directly to the ceiling with ordinary wood screws. With suitable flanges they may be used with outlet boxes. Types 8 and 2 attach directly to 10 ampere condulets.

Sub-bases 300-303-500 may be used with type 5, 5K, 3, 1, 1K, 2, $2\frac{1}{2}$, and 8 clusters; No. 100 base, with types 1, $1\frac{1}{2}$, 1K, 3T, 3K, and 7; No. 200 with types 1, 2, $2\frac{1}{2}$, and 3. With type 3 cluster No. 303 base may be used with 8" ball. For listing see page 66.

Deep Canopy is required instead of the standard $4\frac{1}{2}$ " x $2\frac{1}{2}$ ", where insulating joint is used, and will be furnished at an advance of 15c list. $\frac{3}{8}$ " x $\frac{3}{8}$ " insulating joint may be ordered instead of crowfoot at a net price of 28c; $\frac{1}{2}$ " x $\frac{3}{8}$ " insulating joint, at a net price of 40c. For fibre insulating ring attached to top of canopy add 25c list.

Insulating Joint under Rule 30 A of the National Electrical Code may be omitted by using No. 14 rubber-covered approved wire on any cluster and single unit fixtures, excepting brass shell sockets and clusters depending upon fibre insulation between the shell and live parts.

For further information see page 8



SCHEDULE II
SPECIAL FIXTURES



REFLECTOR SOCKETS

Fixtures 5431-5509 have bushing tapped for $\frac{1}{2}$ " iron pipe, and reflector of indicated design and dimensions only. They may be ordered tapped $\frac{3}{8}$ ", or furnished with insulating bushing ($1\frac{3}{32}$ " opening) for attaching lamp cord, without additional charge. For **lamp grip** described page 55, add 10c list. Sockets used are National Electrical Code Standard. Prices are less lamps.



Cat. No. 5402

FLAT CONE REFLECTOR

Cat. No.		Lamp Size	List Price
5431	14" for Short Base Lamps . . .	25-40 W.	\$2.50
5401	14" for Skirted Base Lamps . .	60 W.	2.50
5402	16" for Skirted Base Lamps . .	60-100 W.	2.80
5403	18" for Skirted Base Lamps . .	150-250 W.	3.40
5501	20" for Mogul Base Lamps . .	250-400 W.	4.20
5503	22" for Mogul Base Lamps . .	400-500 W.	4.80



Cat. No. 5421

BOWL REFLECTOR

5437	12" for Short Base Lamps . . .	25-40 W.	\$2.50
5421	12" for Skirted Base Lamps . .	60 W.	2.50
5423	14" for Skirted Base Lamps . .	60-100 W.	2.80
5425	16" for Skirted Base Lamps . .	150-250 W.	3.40
5427	18" for Skirted Base Lamps . .	250 W.	4.00
5507	16" for Mogul Base Lamps . .	250-400 W.	3.60
5509	18" for Mogul Base Lamps . .	400-500 W.	4.20

Fixtures 5443-5521 have socket, reflector of indicated design and dimensions, gooseneck of $\frac{1}{2}$ " iron pipe overhanging 30", and wall fitting. 48" gooseneck of $\frac{3}{4}$ " iron pipe, overhanging 40", and pole fitting will be furnished at an advance of 40c list. Iron parts are galvanized. For **lamp grip** preventing the loosening and falling of lamps, described page 55, add 10c list. Sockets used are National Electrical Code Standard. Prices are less wires and lamps.



Cat. No. 5412

FLAT CONE REFLECTOR

Cat. No.		Lamp Size	List Price
5443	14" for Short Base Lamps . . .	25-40 W.	\$3.40
5411	14" for Skirted Base Lamps . .	60 W.	3.40
5412	16" for Skirted Base Lamps . .	60-100 W.	3.70
5413	18" for Skirted Base Lamps . .	150-250 W.	4.30
5513	20" for Mogul Base Lamps . .	250-400 W.	5.10
5515	22" for Mogul Base Lamps . .	400-500 W.	5.70

BOWL REFLECTOR

5449	12" for Short Base Lamps . . .	25-40 W.	\$3.40
5418	12" for Skirted Base Lamps . .	60 W.	3.40
5420	14" for Skirted Base Lamps . .	60-100 W.	3.70
5422	16" for Skirted Base Lamps . .	150-250 W.	4.30
5424	18" for Skirted Base Lamps . .	250 W.	4.90
5519	16" for Mogul Base Lamps . .	250-400 W.	4.50
5521	18" for Mogul Base Lamps . .	400-500 W.	5.10

SCHEDULE II DISCOUNTS apply to all materials listed above

REFLECTOR SOCKETS

Fixtures 6025-6139 have socket, reflector of indicated design and dimensions, 12" stem of $\frac{5}{8}$ " brass tubing, 5" x 4" canopy, and crowfoot. Additional length stems list at 30c per foot. For shock absorber instead of crowfoot add 45c list. For **lamp grip** described page 55, add 10c list. Sockets used are National Electrical Code Standard. Prices are less wires and lamps. Standard finish is brushed brass.



Cat. No. 6046

FLAT CONE REFLECTOR

Cat. No.		Lamp Size	List Price
6025	14" for Short Base Lamps	25-40 W.	\$3.30
6036	14" for Skirted Base Lamps	60 W.	3.30
6037	16" for Skirted Base Lamps	60-100 W.	3.60
6038	18" for Skirted Base Lamps	150-250 W.	4.20
6131	20" for Mogul Base Lamps	250-400 W.	5.00
6133	22" for Mogul Base Lamps	400-500 W.	5.60

BOWL REFLECTOR

6027	12" for Short Base Lamps	25-40 W.	\$3.30
6040	12" for Skirted Base Lamps	60 W.	3.30
6046	14" for Skirted Base Lamps	60-100 W.	3.60
6047	16" for Skirted Base Lamps	150-250 W.	4.20
6048	18" for Skirted Base Lamps	250 W.	4.80
6137	16" for Mogul Base Lamps	250-400 W.	4.40
6139	18" for Mogul Base Lamps	400-500 W.	5.00

Fixtures 6005-6149 have socket, reflector of indicated design and dimensions, 12" stem of $\frac{3}{8}$ " iron pipe, and shock absorber. Iron parts are galvanized. Additional length stems list at 20c per foot. For absorber with either top strap or suspending loop add 5c list. For **lamp grip** preventing the loosening and falling of lamps, described page 55, add 10c list. Sockets used are National Electrical Code Standard. Prices are less wires and lamps.



Cat. No. 6061. 19" Over All

FLAT CONE REFLECTOR

Cat. No.		Lamp Size	List Price
6005	14" for Short Base Lamps	25-40 W.	\$3.00
6051	14" for Skirted Base Lamps	60 W.	3.00
6053	16" for Skirted Base Lamps	60-100 W.	3.30
6055	18" for Skirted Base Lamps	150-250 W.	3.90
6141	20" for Mogul Base Lamps	250-400 W.	4.70
6143	22" for Mogul Base Lamps	400-500 W.	5.30

BOWL REFLECTOR

6007	12" for Short Base Lamps	25-40 W.	\$3.00
6059	12" for Skirted Base Lamps	60 W.	3.00
6061	14" for Skirted Base Lamps	60-100 W.	3.30
6063	16" for Skirted Base Lamps	150-250 W.	3.90
6065	18" for Skirted Base Lamps	250 W.	4.50
6147	16" for Mogul Base Lamps	250-400 W.	4.10
6149	18" for Mogul Base Lamps	400-500 W.	4.70

SCHEDULE II DISCOUNTS apply to all materials listed above

DEEP BOWL REFLECTOR SOCKETS



Cat. No. 6168

Fixtures 6166-6170 have integral enameled steel reflector with two-piece porcelain receptacle, and are intended to cover a range of lamps from 25 to 250 watts. Each reflector is suitable for two sizes, adapted for a maximum extensive distribution at approximately 40 degrees from the vertical. They are especially useful in shop lighting where it is desirable to protect the operator's eyes against direct rays. They are regularly furnished with bushing tapped for $\frac{1}{2}$ " iron pipe, but may be ordered tapped $\frac{3}{8}$ ", or with insulating bushing ($1\frac{1}{32}$ " opening) for attaching lamp cord, without additional charge. For **lamp grip** described page 55, add 10c list. For hinged wire lock guards, with means for attaching a ground wire where lamps are used near moving belts

producing static currents, see pages 52 and 53. Standard finish is white enamel with blue head. Sockets used are National Electrical Code Standard. Prices are less lamps.

Cat. No.	Reflector Size	Lamp Size	List Price
6166	7"	25-40 W.	\$2.20
6167	8"	60 W.	2.30
6168	9"	60-100 W.	2.40
6170	11"	150-250 W.	3.40

ANGLE REFLECTOR SOCKETS

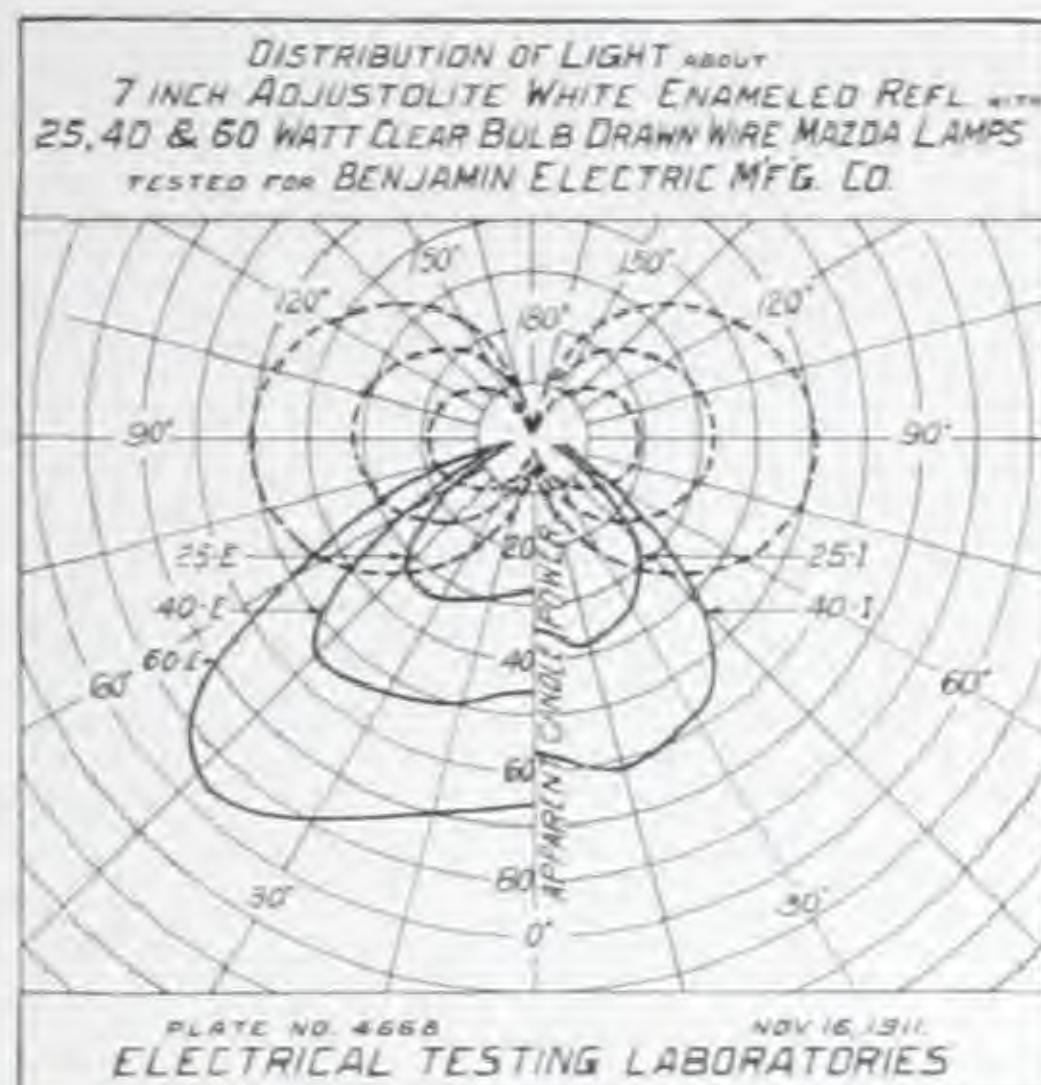


Cat. No. 5525

Fixtures 5525-5529 are angle reflector sockets consisting of an enameled steel reflector, and porcelain receptacle. The former is irregular in form, shaped to produce an even distribution of light. No. 5525 is especially adapted for sign boards; Nos. 5527-5529, for the lighting of large mills where traveling cranes make it desirable to attach fixtures to side walls. They may be mounted on gooseneck or other desirable means. Bushing furnished is regularly tapped for $\frac{1}{2}$ " iron pipe, but may be ordered $\frac{3}{8}$ " without change in price. Receptacle is supplied with **lamp grip**. Standard finish is black outside, white inside. Sockets used are National Electrical Code Standard. Prices are less lamps.

Cat. No.	Reflector Size	Lamp Size	List Price
5525	11 $\frac{3}{4}$ "	60-100 W.	\$3.00
5527	18"	150-250 W.	6.00
5529	18"	400-500 W.	6.50

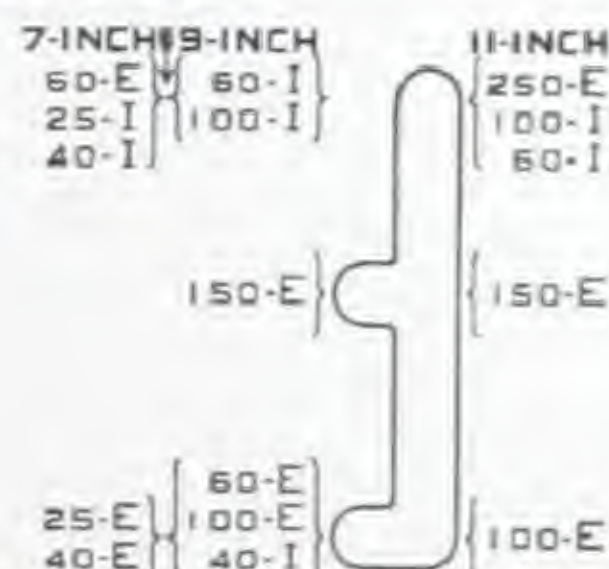
SCHEDULE II DISCOUNTS apply to all materials listed above



ADJUSTOLITES



Cat. No. 6162



DIAGRAMS AS THEY APPEAR ON RESPECTIVE REFLECTORS SHOWING
POSITIONING FEATURE WITH LAMP WATTAGE AND DIS-
TRIBUTION. "E"-EXTENSIVE, "I"-INTENSIVE

Cat. No.		List Price
6160	Adjustolite, 7" Reflector	\$2.50
6162	" 9" "	2.80
6164	" 11" "	3.40

Fixtures 6160-6164 have deep bowl enameled steel reflector detachably connected—by means of a reliable bayonet snap lock—with a brass cylinder which telescopes the socket shell, and two-piece receptacle. Three reflectors cover a range of lamps from 25 to 250 watts. For the purpose of adjustment the cylinder is slotted on opposite sides for the passage of clamping screws carried by the socket shell. This result is brought about by merely loosening two screws and sliding the reflector to one of the three positions indicated, and again setting the screws. No change is necessary in the socket or wire. Three sizes of reflectors are furnished: 7" for 25- to 60-watt, extensive, and 25- to 40-watt, intensive; 9" for 60- to 150-watt, extensive, and 40- to 100-watt, intensive; 11" for 100- to 250-watt, extensive, and 60- to 100-watt, intensive. For lamp grip described page 55, add 10c list; for hinged wire guard see pages 52 and 53. Standard finish on reflectors is white enamel with blue bead; on socket covers, brushed brass.

For fixture with 12" stem of $\frac{5}{8}$ " brass tubing, 5" x 4" canopy, and crowfoot, add 80c list; with stem of $\frac{3}{4}$ " iron pipe and $\frac{3}{4}$ " brass casing instead of $\frac{5}{8}$ " brass tubing add \$1.00 list; for shock absorber instead of crowfoot add 45c list; for 12" stem of $\frac{3}{8}$ " iron pipe and shock absorber add 50c list. Iron parts are galvanized.

SCHEDULE II DISCOUNTS apply to all materials listed above

ENAMELED STEEL REFLECTORS

DEEP BOWL

The Reflectors 242-248P are enameled steel, with shade holder for either drop cord socket or standard brass shell socket. They are furnished in four sizes, and cover a range of lamps from 25 to 250 watts for extensive illumination. For hinged wire guard, see pages 52 and 53. Standard finish is white enamel with blue bead. Prices are less lamps and sockets. Listings on other reflectors are self-explanatory.



Cat. No. 244P—Enam. Steel
Reflector. Porcelain Enam.
White Both Sides

Cat. No.		Lamp Size	List Price
242	7", for Brass Shell Socket ..	25-40 W.	\$1.14
242P	7", for Porcelain Socket	25-40 W.	1.14
244	8", for Brass Shell Socket ..	60 W.	1.35
244P	8", for Porcelain Socket	60 W.	1.35
246	9", for Brass Shell Socket ..	100 W.	1.58
246P	9", for Porcelain Socket	100 W.	1.58
248	11", for Brass Shell Socket ..	150-250 W.	3.00
248P	11", for Porcelain Socket	150-250 W.	3.00



Cat. No. H410—Enam. Steel
Reflector. Porcelain Enam.
White Both Sides

SHALLOW BOWL

H410	10", for 2 1/4" Holder	\$0.80
H412	12", " 2 1/4" "	1.30
H414	14", " 3 1/4" "	1.70
H416	16", " 3 1/4" "	2.00



Cat. No. H515—Enam. Steel
Reflector. Porcelain Enam.
White Both Sides

FLAT CONE

H510	10", for 2 1/4" Holder	\$0.70
H515	15", " 3 1/4" "	1.60
H518	18", " 3 1/4" "	2.00

FLAT CONE

H316	16", for Type 3T Cluster	\$1.80
H318	18", " " " "	2.10



Cat. No. H316—Enam. Steel
Reflector. Porcelain Enam.
White Both Sides

SCHEDULE II DISCOUNTS apply to all materials listed above

SINGLE UNIT LIGHTING FIXTURES



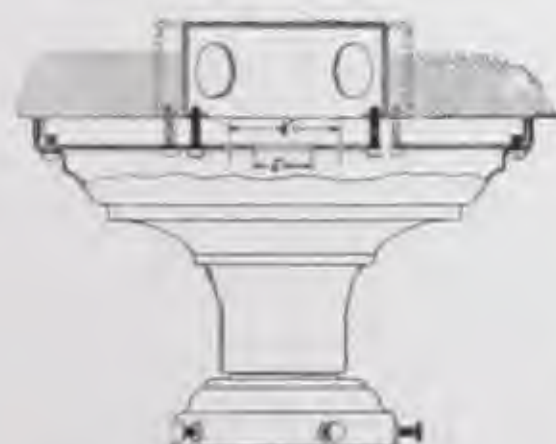
Standard Finish—Enamel
Steel. Cat. No. 4306



Standard Finish—Brushed
Brass. Cat. No. 4312



Standard Finish—Brushed
Brass. Cat. No. 4314



A Method of Attaching

Fixtures 4300-4308 are ceiling fixtures embodying white enameled steel ring or base, supporting means, and porcelain-lined socket. No insulating joint is required. The base is held by a screw-threaded ring on the outside of the socket shell, thus making it unnecessary for screws to pass through the enamel. Shade holders are covered by white enameled steel cap. Holder screws are nickel-plated. With proper reflectors fixtures therefore present an all-white appearance.

12" bases have mogul screw base sockets for 400- to 500-watt lamps, and are equipped with special safety holder which securely locks the shade in position; 10" bases have medium screw base socket for 40- to 250-watt lamps, and have holder with **spring clip** which prevents loosening and falling. For **lamp grip** add 10c list. Sockets used are National Electrical Code Standard. Prices are less lamps and glassware.

Cat. No.	ENAMELED STEEL BASE						List Price
4300	12"	with	3 1/4"	Form "A"	Holder and Cover		\$9.00
4302	10"	"	2 1/4"	" " "O"	" " " "	"	4.25
4304	10"	"	2 1/4"	" " "H"	" " " "	"	4.35
4306	10"	"	3 1/4"	" " "A"	" " " "	"	4.40
4308	10"	"	3 1/4"	" " "H"	" " " "	"	4.50

Fixtures 4310-4312 have brushed brass two-piece base. The upper portion is adapted for attaching directly to the ceiling or to outlet box by any of the usual methods. In the first fixture, socket is attached directly to the upper portion; in the second, the lower portion carrying the socket is attached to the upper by four screws. With 10" base, socket shell has screw thread, making it possible to use any of six sizes of holders covering the range of lamps up to 250-watts. For holders only see bottom of page. Other specifications given above apply.

Cat. No.	BRUSHED BRASS BASE		List Price
4310	12"	Mogul Screw Base Socket, 3 1/4" Holder	\$8.00
4312	10"	with Medium Screw Base Socket only	4.00

Fixture 4314 is essentially fixture 4312 described above with 8" instead of 10" base, and is furnished with strap for attaching to outlet box. 40- to 60-watt lamps are recommended.

Cat. No.	BRUSHED BRASS BASE		List Price
4314	8"	with Medium Screw Base Socket only	\$2.20

HOLDERS FOR 10" AND 8" BRASS FIXTURES

Cat. No.			List Price	Std. Pkg.
4238	2 1/4"	Form "O" with Spring Clip	\$0.25	50
4240	2 1/4"	" " "H"	.35	50
4242	3 1/4"	" " "A"	.40	50
4244	3 1/4"	" " "H"	.50	50
4246	4"	with Spring Clip	.60	50
4248	5"	" " " "	.80	50
4250	6"	" " " "	1.10	50

SCHEDULE II DISCOUNTS apply to all materials listed above including shade holders ordered with fixtures; on holders only, **Schedule IV discounts**

SINGLE UNIT CEILING FIXTURES



Standard Finish—Brushed
Brass. Cat. No. 4316



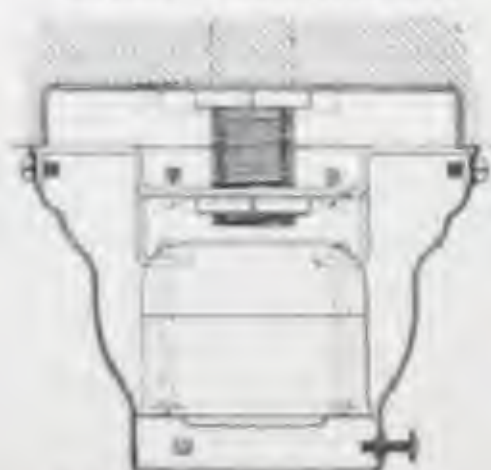
A Method of Attaching



Standard Finish—Brushed
Brass. Cat. No. 396



Standard Finish—Brushed
Brass. Cat. No. 381



A Method of Attaching

Fixture 4316 is an inexpensive single unit fixture designed on the general lines of No. 4314, page 27. It measures 6" at the base, and is supplied with strap for attaching to outlet box. The socket is permanently attached to the ceiling ring but is without cover which appears on the fixtures of the preceding page. 25- and 40-watt lamps are recommended. For **lamp grip** add 10c list; for holders see bottom of page 27. Sockets used are National Electrical Code Standard. Prices are less lamps and glassware.

Cat. No.	List Price
4316 6", with Medium Screw Base Socket only..	\$1.30

Fixtures 395-396 are efficient and inexpensive single unit ceiling fixtures adapted for 25- and 40-watt lamps. They have No. 81 socket with 2 $\frac{1}{4}$ " Form "O" holder. Sockets used are National Electrical Code Standard. Prices are less lamps.

Cat. No.	List Price
395 Socket and Holder only	\$0.60
396 Complete with Prismatic Glass Shade....	1.60

Fixtures 361-381 have base with holder, supporting strap, and two-piece medium screw base porcelain receptacle. The latter completely encloses connections making insulating joint unnecessary where approved No. 14 rubber covered wire is used. Shell may be attached or removed after connections have been made by merely loosening the screws of the top rim. Three methods of attaching are possible: (1) directly to the ceiling or wooden block by means of wood screws; (2) to the ceiling plate, either by a lock-nut to pipe support, or by strap to fixture stud; (3) directly to outlet box, thus taking place of the cover. No. 391 has mogul screw base one-piece receptacle. For **lamp grip** add 10c list. Sockets used are National Electrical Code Standard. Prices are less lamps and glassware.

Cat. No.	List Price
361 With 4 $\frac{1}{2}$ " Base, 2 $\frac{1}{4}$ " Form "O" Holder	\$1.50
371 " 6" " , 2 $\frac{1}{4}$ " " " "H" "	1.70
381 " 6" " , 3 $\frac{1}{4}$ " " " "A" "	1.80
391 " 6" " , 3 $\frac{1}{4}$ " " " "A" for Mogul Screw Base Lamps	2.40

SCHEDULE II DISCOUNTS apply to all materials listed above

SINGLE UNIT PENDENT FIXTURES



Cat. No. 0371



Cat. No. 321



Cat. No. 0211

Fixtures 0361-0381 have porcelain-lined socket with either 2 $\frac{1}{4}$ " or 3 $\frac{1}{4}$ " ventilated holder, standard 8" stem of $\frac{3}{8}$ " brass tubing, 5" x 4" canopy, and crowfoot. Additional length stems list at 30c per foot. No. 0391 has 8" stem of $\frac{3}{4}$ " iron pipe and $\frac{3}{4}$ " brass casing. Additional lengths list at 50c per foot. Prices are less wires, lamps, and glassware. For shock absorber instead of crowfoot add 45c list. Sockets used are National Electrical Code Standard. Standard finish is brushed brass.

Cat. No.		List Price
0361	With 2 $\frac{1}{4}$ " Form "O" Holder	\$1.70
0371	" 2 $\frac{1}{4}$ " " "H" "	1.80
0381	" 3 $\frac{1}{4}$ " " "A" "	1.85
0391	" 3 $\frac{1}{4}$ " " "A" " for Mogul	
Base Lamps		2.75

Fixtures 301-321 have integrally formed socket shell and 6" shade holder, with or without 10" x 6" Alabaster Globe, suspension extending 13" from the top of socket shell to top of fixture, 5" x 4" canopy, and crowfoot. They are furnished with medium screw base sockets, and are intended for 100- to 250-watt lamps. Prices are less wires and lamps. Extra length chains list at 70c per foot. For shock absorber instead of crowfoot add 45c list. Sockets used are National Electrical Code Standard. Standard finish is brushed brass.

Cat. No.		List Price
301	Complete less Globe only	\$4.00
321	" with 10" x 6" Alabaster Globe	6.70

Fixtures 0201-0221 have integrally formed socket shell and 6" shade holder, mogul screw base socket, either 16" bowl shaped or 20" flat cone opal reflector of special design, 12" stem of $\frac{3}{8}$ " iron pipe and $\frac{3}{4}$ " brass casing, 5" x 4" canopy, and crowfoot. They are intended for 250- to 500-watt mogul screw base lamps. Sockets for medium screw base lamps may be ordered at a reduction of 20c list. Glassware is supported by five 8-32 screws. For shock absorber instead of crowfoot add 45c list. For 13" chain suspension shown above instead of brass stem add 60c list. Prices are less wires and lamps. Sockets used are National Electrical Code Standard. Standard finish is brushed brass.

Cat. No.		List Price
0201	Complete less Reflector only	\$3.60
0211	" with 16" Bowl Shaped Reflector	6.00
0221	" " 20" Flat Cone	6.00

SCHEDULE II DISCOUNTS apply to all materials listed above

TUNGSTEN ARCS



Standard Finish—Brushed
Brass. Cat. No. T54.
23" Over All

Fixtures T52-T55 have cluster body, enameled steel reflector plate, 15" stem of $\frac{3}{8}$ " iron pipe and $\frac{3}{4}$ " brass casing, 18" opal reflector, 5" x 4" canopy, and crowfoot. Cluster body consists of enameled steel plate, and receptacles which permit of wiring in any manner. 100-watt lamps may be used. Prices are less wires and lamps. Additional length stems list at 50c per foot. For fixture with shock absorber add 45c list; with pendent switch and one yard of flexible cord, 70c list; for 18" enameled steel instead of opal reflector, add \$1.00 list. Clusters used are National Electrical Code Standard.

Cat. No.		List Price
T52	2-Light Multiple	\$7.10
T53	3 " "	7.40
T54	4 " "	7.70
T55	5 " "	8.00



Standard Finish—Brushed
Brass. Cat. No. T84.
23" Over All

Fixtures T83-T85 have cluster body, 15" stem of $\frac{3}{8}$ " iron pipe and $\frac{7}{8}$ " brass casing, reflector holder, 18" opal reflector, ventilated enclosing globe, 5 1/2" x 4" canopy, and crowfoot. Cluster body consists of steel plate, and receptacles which permit of wiring in any manner. 60-watt lamps may be used. Prices are less wires, lamps and switch. Additional length stems list at 50c per foot. For fixture with shock absorber (requiring $\frac{3}{4}$ " brass casing) add 45c list; for grouping switch furnishing three degrees of illumination, and chain extending 54" below the ceiling, add \$2.75 list. Clusters used are National Electrical Code Standard.

Cat. No.		List Price
T83	3-Light Multiple	\$11.00
T84	4 " "	11.30
T85	5 " "	11.60



Standard Finish—Brushed
Brass. Cat. No. T824.
9" Over All

Fixtures T823-T825 are substantially the enclosed arcs shown above with ornamental base and attaching means instead of stem and canopy, but without enclosing globe. An inner, special reflector shell of frosted aluminum assists in the downward radiation of light. 4- to 6-light fixtures may be furnished with center lamp opening. 100-watt lamps may be used. For fixtures with enclosing globe shown above for use with 60-watt lamps add \$2.65 list.

Cat. No.		List Price
T823	3-Light Multiple	\$6.90
T824	4 " "	7.20
T825	5 " "	7.50

SCHEDULE II DISCOUNTS apply to all materials listed above

TUNGSTEN ARCS



Standard Finish—Brushed
Brass. Cat. No. T44.
23" Over All

Fixtures T43-T45 have cluster body with special reflector shell of frosted aluminum, 15" stem of $\frac{3}{8}$ " iron pipe and $\frac{7}{8}$ " brass casing, reflector holder, 18" opal reflector, $5\frac{1}{2}$ " x 4" canopy, and crowfoot. Cluster body consists of steel plate, and receptacles which permit of wiring in any manner. 100-watt lamps may be used. Prices are **less wires and lamps**. Additional length stems list at 50c per foot. For fixture with shock absorber (requiring $\frac{3}{4}$ " brass casing) add 45c list; for pendent switch and one yard of flexible cord, 70c list. Clusters used are National Electrical Code Standard.

Cat. No.		List Price
T43	3-Light Multiple	\$8.40
T44	4 " "	8.70
T45	5 " "	9.00



Standard Finish—Brushed
Brass. Cat. No. T45K.
27" Over All

Fixtures T44K-T46K are substantially the fixtures described above with center lamp added. The other specifications there given apply.

Cat. No.		List Price
T44K	4-Light Multiple	\$8.70
T45K	5 " "	9.00
T46K	6 " "	9.30



Standard Finish—Brushed
Brass. Cat. No. T864.
23" Over All

Fixtures T863-T866 have 20" high-grade porcelain enameled steel reflector, standard 12" stem of $\frac{3}{8}$ " iron pipe and $\frac{3}{4}$ " brass casing, 5" x 4" canopy, and crowfoot. A special inner reflector assists in the downward radiation of light. Cluster body consists of steel plate, and receptacles which permit of wiring in any manner. 3- and 4-light fixtures have socket outlets at an angle of 6 degrees with the vertical, and will take 100-watt (S.-30-A.) lamps; 5- and 6-light fixtures at an angle of 16 degrees, and will take 100-watt (S.-35-A.) lamps. Prices are **less wires and lamps**. Additional length stems list at 50c per foot. For fixture with shock absorber add 45c list. Clusters used are National Electrical Code Standard.

Cat. No.		List Price
T863	3-Light Multiple	\$8.00
T864	4 " "	8.30
T865	5 " "	8.60
T866	6 " "	8.90

SCHEDULE II DISCOUNTS apply to all materials listed above

WIRELESS FIXTURES



Standard Finish—Brushed
Brass. Cat. No. 0733.
20" Over All



Standard Finish—Brushed
Brass. Cat. No. 0335.
20" Over All



Standard Finish—Brushed
Brass. Cat. No. 1004.
24" Over All

Fixtures 0732-0733 have Type 3 cluster body, standard 12" stem of $\frac{5}{8}$ " brass tubing, special 5" deep holder, 16" opal reflector, 5" x 4" canopy, and crowfoot. Socket outlets are at an angle of 16 degrees with the vertical. 100-watt lamps may be used. Prices are less wires and lamps. Additional length stems list at 30c per foot. Clusters used are National Electrical Code Standard.

Cat. No.		List Price
0732	2-Light Multiple	\$4.50
0733	3 " "	4.75
0732 $\frac{1}{2}$	2 " Series	4.50

For ceiling fixture omit stem, canopy, and crowfoot, and deduct 80c list.

Fixtures 0332-0335 have cluster body, standard 12" stem of $\frac{3}{8}$ " iron pipe and $\frac{3}{4}$ " brass casing, special 6" deep holder, 18" flat opal reflector, 5" x 4" canopy, and crowfoot. Clusters have knockout bushing for attaching pendent switch. Socket outlets are at an angle of 18 degrees with the vertical. 4-light fixtures will take 100-watt lamps; 5-light fixtures, 60-watt lamps. Prices are less wires and lamps. Additional length stems list at 50c per foot. For fixture with shock absorber add 45c list. For 16" opal glass bowl shown below instead of flat reflector add 50c list. Clusters used are National Electrical Code Standard.

Cat. No.		List Price
0332	2-Light Multiple	\$5.50
0333	3 " "	5.75
0334	4 " "	6.00
0335	5 " "	6.25

Fixtures 1002-1005 have integrally formed socket shell and 6" shade holder, suspension extending 13" from top of shell to top of canopy, 16" x 6" x 5 $\frac{1}{4}$ " opal dome reflector, 5" x 4" canopy, and crowfoot. Socket outlets are at an angle of 18 degrees with the vertical. 4-light fixtures will take 100-watt lamps; 5-light fixtures, 60-watt lamps. Prices are less wires and lamps. Extra length chains list at 70c per foot. For shock absorber instead of crowfoot add 45c list. Clusters used are National Electrical Code Standard.

Cat. No.		List Price
1002	2-Light Multiple	\$7.45
1003	3 " "	7.70
1004	4 " "	7.95
1005	5 " "	8.20

SCHEDULE II DISCOUNTS apply to all materials listed above

WIRELESS FIXTURES

Fixtures 0532-0535 have 3T cluster body, standard 12" stem of $\frac{3}{8}$ " iron pipe and $\frac{3}{4}$ " brass casing, 16" deeply hooded enameled steel reflector, 5" x 4" canopy, and crowfoot. Socket outlets are at an angle of 18 degrees with the vertical. Fixtures will take 60-watt lamps. 4-light fixtures with 18" reflector may be furnished for 100-watt lamps at an advance of 30c list. Additional length stems list at 50c per foot. For fixture with shock absorber add 45c list. Clusters used are National Electrical Code Standard. Prices are less wires and lamps.



Standard Finish—Brushed
Brass. Cat. No. 0534.
20" Over All

Cat. No.		List Price
0532	2-Light Multiple	\$4.55
0533	3 " "	4.80
0534	4 " "	5.05
0535	5 " "	5.30

Fixtures 0542-0545 have 3T cluster body, 18" bowl-shaped enameled steel reflector, 12" stem of $\frac{3}{8}$ " iron pipe and $\frac{3}{4}$ " brass casing, 5" x 4" canopy, and crowfoot. Socket outlets are at an angle of 18 degrees with the vertical. Ventilation is provided between reflector and cap. 4-light fixtures will take 150-watt lamps; 5-light fixtures, 60-watt lamps. Additional length stems list at 50c per foot. For fixture with shock absorber add 45c list. Clusters used are National Electrical Code Standard. Prices are less wires and lamps.



Standard Finish—Brushed
Brass. Cat. No. 0544.
20" Over All

Cat. No.		List Price
0542	2-Light Multiple	\$5.65
0543	3 " "	5.90
0544	4 " "	6.15
0545	5 " "	6.40

Fixtures 0143-0146 have Type 1 cluster body, 18" bowl-shaped enameled steel reflector, 12" stem of $\frac{3}{8}$ " iron pipe and $\frac{3}{4}$ " brass casing, 5" x 4" canopy, and crowfoot. Socket outlets are at an angle of 63 degrees with the vertical. 100-watt lamps may be used. Additional length stems list at 50c per foot. For fixture with shock absorber add 45c list. Clusters used are National Electrical Code Standard. Prices are less wires and lamps.



Standard Finish—Brushed
Brass. Cat. No. 0144.
19" Over All

Cat. No.		List Price
0143	3-Light Multiple	\$5.90
0144	4 " "	6.15
0145	5 " "	6.40
0146	6 " "	6.65

SCHEDULE II DISCOUNTS apply to all materials listed above

INDUSTRIAL CLUSTERS

Fixtures 0632L-0635 $\frac{1}{2}$ have 3T wireless cluster body, 18" deeply hooded enameled steel reflector, 12" stem of $\frac{3}{8}$ " iron pipe, and shock absorber. Iron parts are galvanized. Socket outlets are at an angle of 18 degrees with the vertical. 4-light fixtures will take 150-watt lamps; 5-light fixtures, 60-watt lamps.

For 16" reflector instead of 18", deduct 30c list. Additional length stems list at 20c per foot. Clusters used are National Electrical Code Standard. Prices are less wires and lamps.



Cat. No. 0634L. 19" Over All

Cat. No.		List Price
0632L	2-Light Multiple.....	\$4.40
0633L	3 " "	4.65
0634L	4 " "	4.90
0635L	5 " "	5.15
0634SM	4-Light Series Multiple	\$5.00
0632 $\frac{1}{2}$	2-Light Series	\$4.40
0634 $\frac{1}{2}$	4 " "	4.90
0635 $\frac{1}{2}$	5 " "	5.15

Fixtures 0642-0645 $\frac{1}{2}$ have 3T wireless cluster body, 18" bowl-shaped enameled steel reflector, 12" stem of $\frac{3}{8}$ " iron pipe, and shock absorber. Iron parts are galvanized. Socket outlets are at an angle of 18 degrees with the vertical. Ventilation is provided between reflector and cap. 4-light fixtures will take 150-watt lamps; 5-light fixtures, 60-watt lamps. Additional length stems list at 20c per foot. Clusters used are National Electrical Code Standard. Prices are less wires and lamps.



Cat. No. 0644. 20" Over All

Cat. No.		List Price
0642	2-Light Multiple.....	\$5.20
0643	3 " "	5.45
0644	4 " "	5.70
0645	5 " "	5.95
0644SM	4-Light Series Multiple	\$5.80
0642 $\frac{1}{2}$	2-Light Series	\$5.20
0644 $\frac{1}{2}$	4 " "	5.70
0645 $\frac{1}{2}$	5 " "	5.95

SCHEDULE II DISCOUNTS apply to all materials listed above

INDUSTRIAL CLUSTERS



Cat. No. 0664

Fixtures 0664-0694 are specially designed for the lighting of mills and factories. 0664 and 0674 have 24" enameled steel concentrating dome reflector, and are intended for use where it is necessary to hang the lighting units sufficiently high to clear traveling cranes; 0684 and 0694 have 24" enameled steel flat cone distributing reflector, for use where the units are suspended from 25 to 30 feet above the floor. Fixtures have either medium screw base or mogul screw base sockets for 250-watt lamps, 8" stem of 1/2" iron pipe, and weather-proof fitting with porcelain wire openings (No. 6031). For fitting with shock absorber (No. 6030),

deduct 20c list. They are regularly furnished wired multiple for 110-volt circuits, but may be ordered wired **series multiple** or **series** for 220-volt circuits, without change in price. For **lamp grip** described on page 55, add 40c per fixture list. Iron parts are galvanized. Fixtures with No. 6031 fitting are National Electrical Code Standard. Prices include stem wires, but are less lamps.

MILL CLUSTERS

Cat. No.							List Price
0664	4-Light Multiple with Dome Reflector (Mogul Screw Base)						\$16.80
0674	4 " " " " " " (Medium " ")						16.00
0684	4 " " " " " " Flat Cone Reflector (Mogul Screw Base)						16.80
0694	4 " " " " " " (Medium " ")						16.00



Cat. No. 674

Fixtures 674-676 have Type 1 cluster body, a heavy 16" copper hood—white enameled on the inside, black on the outside—and a strong galvanized iron guard. Metal parts are non-corrosive and durable. Rope suspension facilitates ready adjustment. They are specially serviceable around wharves, steamer holds, in building and construction work. Clusters used are National Electrical Code Standard. Prices are less wires and lamps.

CARGO LIGHTS

Cat. No.						List Price
674	4-Light Multiple					\$12.00
675	5 " " " " " "					12.25
676	6 " " " " " "					12.50

SCHEDULE II DISCOUNTS apply to all materials listed above

INDUSTRIAL CLUSTERS

Fixtures 6032-6035 have 3T cluster body with shell of aluminum, 16" enameled steel reflector, standard 8" stem of $\frac{1}{2}$ " iron pipe, and separable suspension fitting. Iron parts are galvanized. Reflector and cluster are attached to each other by flange, and the joint made water-tight by a rubber gasket. Additional length stems list at 25c per foot. For suspension fitting with shock absorber add 10c list. Clusters used are National Electrical Code Standard. Prices are less wires and lamps.



Cat. No. 6034. 18" Over All

Cat. No.		List Price
6032	2-Light Multiple	\$4.20
6033	3 " "	4.45
6034	4 " "	4.70
6035	5 " "	4.95

Fixtures 6042-6045 are substantially the fixtures described above with 18" instead of 16" enameled steel reflector, and $10\frac{1}{2}$ " glass globe with $9\frac{1}{4}$ " opening, and globe support added. The former may readily be removed by raising it slightly and unscrewing the cap of the latter. 60-watt lamps may be used. The other specifications given above apply. For C. R. I. instead of clear globe, add 20c list. Clusters used are National Electrical Code Standard.



Cat. No. 6044. 21" Over All

Cat. No.		List Price
6042	2-Light Multiple	\$8.10
6043	3 " "	8.35
6044	4 " "	8.60
6045	5 " "	8.85

Fixtures T784-T795 have 24" slightly parabolic porcelain enameled steel reflector, $11\frac{1}{4}$ " glass globe with $10\frac{1}{2}$ " opening, metal cross arm with porcelain knobs, weather-proof porcelain connecting block, and suspension loop. Globe may be removed, or suspended and held in position by means of a rod passing through the hollow support. 100-watt (S.-30-A.) lamps may be used. Fixture T804 has $12\frac{3}{4}$ " globe with 11" opening for use with 150-watt (S.-35-A.) lamps. For fixture less cross arm and suspension fitting, deduct \$1.50 list. Sockets used are National Electrical Code Standard. Prices are less lamps.



Cat. No. T784

Cat. No.		List Price
T784	4-Light Multiple, Complete	\$14.00
T785	5 " " " "	14.30
T794	4-Light Multiple, Complete less Globe and Globe Support	11.50
T795	5-Light Multiple, Complete less Globe and Globe Support	11.80
T804	4-Light Multiple, Complete with $12\frac{3}{4}$ " x 11" Globe	14.50

SCHEDULE II DISCOUNTS apply to all materials listed above

INDUSTRIAL CLUSTERS

Fixtures T873-T876 have 20" high-grade porcelain enameled steel reflector with inner reflector, standard 8" stem of $\frac{1}{2}$ " iron pipe, and separable suspension fitting. Prices are less wires and lamps. 3- and 4-light fixtures have socket outlets at an angle of 6 degrees with the vertical; 5- and 6-light fixtures, at an angle of 16 degrees. 100-watt (S.-35-A.) lamps may be used. For fitting with shock absorber No. 6030 add 10c list; for fixtures less stem and fitting deduct 55c list. Additional length stems list at 25c per foot. Sockets used are National Electrical Code Standard. Iron parts are galvanized.



Cat. No. T875

Cat. No.		List Price
T873	3-Light Multiple	\$7.75
T874	4 " "	8.05
T875	5 " "	8.35
T876	6 " "	8.65

Fixtures 883-894 are dust-proof devices for use in foundries, mills, etc. They have 20" high-grade porcelain enameled steel reflector, standard 8" stem of $\frac{1}{2}$ " iron pipe, and separable suspension fitting. With the exception of 894 they have $11\frac{1}{4}$ " glass globe with $10\frac{1}{2}$ " opening. A rubber gasket between reflector and globe renders them dust-proof. Globe may be removed, or suspended and held in position by means of a rod passing through the hollow support. An inside white enameled steel reflector assists in the downward radiation of light. 100-watt (S.-30-A.) lamps may be used. Fixture 894 has $12\frac{3}{4}$ " globe with 11" opening for use with 150-watt (S.-35-A.) lamps. Prices are less wires and lamps. For fitting with shock absorber No. 6030 add 10c list. Additional length stems list at 25c per foot. Sockets used are National Electrical Code Standard. Iron parts are galvanized.



Cat. No. 884

Cat. No.		List Price
883	3-Light Multiple Complete	\$10.25
884	4 " " "	10.55
885	5 " " "	10.85
886	6 " " "	11.15
894	4-Light Multiple, Complete with $12\frac{3}{4}$" x 11" Globe	11.05

Fixtures 1553-1559 are gas- and vapor-proof single unit devices with enameled steel reflector of indicated dimensions, and screw-threaded enclosing globe. The first three fixtures have cast iron hood tapped for $\frac{1}{2}$ " iron pipe, and two-piece medium screw base receptacle with **lamp grip** described page 55. The fourth fixture has enameled steel, hooded reflector with mogul screw base receptacle, and **lamp grip**. The globe of the latter is held by four clamping screws. Asbestos gaskets render the joints air-tight. Sockets used are National Electrical Code Standard. Prices are less wires and lamps.



Cat. No. 1557

Cat. No.		List Price
1553	With 15" Refl. for 25-40 Watt Lamps	\$4.00
1555	" 16" " 60-100 "	5.00
1557	" 18" " 150-250 "	6.00
1559	" 22" " 500 "	10.00

SCHEDULE II DISCOUNTS apply to all materials listed above

STORE FRONT FIXTURES



Cat. No. 560

Fixtures 560-562 have medium screw base socket with lamp grip, with or without 12"x7" Melilite globe. Above the latter is the body portion of mottled oxidized copper, 3' mast arm of $\frac{3}{4}$ " iron pipe, head, pole fitting with porcelain wire openings, and chain with attaching terminals. Extra length arms up to 8' including chain list at 60c per foot. 150- to 250-watt lamps may be used. Prices are less wires and lamps. Sockets used are National Electrical Code Standard. Iron parts are galvanized.

Cat. No.	List Price
560 Complete with Melilite Globe	\$15.00
562 " less Globe only	8.00



Cat. No. 566

Fixtures 566-568 have 20" enameled steel reflector, mottled oxidized copper holder of the hooded-ventilated type, and 10"x6" Melilite globe. The reflector is blue-black on the outside. For further specifications see fixture above.

Cat. No.	List Price
566 Complete with Melilite Globe	\$14.00
568 " less Globe only	8.50



Cat. No. 1575

Fixtures 1573-1576 are large unit incandescent fixtures with enameled steel hood, 22" reflector, and either medium screw base socket, or mogul screw base socket, with lamp grip. With the former 250-watt lamps may be used; with the latter, 500-watt lamps. The reflector is blue-black on the outside. For further specifications see fixtures above; for other forms see pages 39 to 41.

Cat. No.	List Price
1573 Complete with Medium Screw Base Socket	\$12.20
1574 Complete with Medium Screw Base Socket less Mast Arm	9.80
1575 Complete with Mogul Screw Base Socket	12.40
1576 Complete with Mogul Screw Base Socket less Mast Arm	10.00

SCHEDULE II DISCOUNTS apply to all materials listed above

STREET LIGHTING FIXTURES

Fixtures T74-T745 have 20" high-grade porcelain enameled steel reflector, and 11 $\frac{1}{4}$ " glass globe with 10 $\frac{1}{2}$ " opening. Above the former is the body portion of copper, metal cross arm with porcelain knobs, weather-proof porcelain connecting block, and suspension loop. Globe may be removed, or suspended and held in position by means of a rod passing through the hollow support. An inside white enameled steel reflector assists in the downward radiation of light. 100-watt (S.-30-A.) lamps may be used. Fixture T764 has 12 $\frac{3}{4}$ " globe with 11" opening for use with 100-watt (S.-35-A.) lamps. Prices are less lamps. Sockets used are National Electrical Code Standard.



Cat. No. T74

Cat. No.		List Price
T74	4-Light Multiple, Complete	\$14.00
T75	5 " " "	14.30
T744	4-Light Multiple, Complete less Globe and Globe Support	11.50
T745	5-Light Multiple, Complete less Globe and Globe Support	11.80
T764	4-Light Multiple, Complete with 12 $\frac{3}{4}$ " x 11" Globe	14.50

Fixtures T714-T774 have 3' mast arm of $\frac{3}{4}$ " iron pipe, with wires, head, pole fitting with porcelain wire openings, chain, and attaching terminals. Extra length arms up to 8' including chain and wire list at 70c per foot. 100-watt (S.-30-A.) lamps may be used. 12 $\frac{3}{4}$ " x 11" globe for 100-watt lamps (S.-35-A.) may be ordered at an advance of 50c list. Prices are less lamps. For further description see fixture above.



Cat. No. T714

Cat. No.		List Price
T714	4-Light Multiple, Complete	\$14.00
T715	5 " " "	14.30
T724	4-Light Multiple, Complete less Mast Arm	11.00
T725	5-Light Multiple, Complete less Mast Arm	11.30
T774	4-Light Multiple, Complete with 12 $\frac{3}{4}$ " x 11" Globe	14.50

Fixtures T831-T834 are furnished in two sizes: (1) with 7" hooded, ventilated type holder, 12" x 7" Alabaster globe, and either medium screw base socket or type 3 cluster; (2) with 9" holder, 12" x 9" globe, and either mogul screw base socket or type 3T cluster. Each has weather-proof suspension fitting with porcelain wire openings. With No. T831, 250-watt lamps may be used; with No. T832, 500-watt lamps; with Nos. T833 and T834, 40-watt lamps. For fixture with mast arm less wires instead of suspension fitting, add \$1.80 list; with bushing tapped for $\frac{1}{2}$ " iron pipe, deduct 60c list. Sockets and clusters used are National Electrical Code Standard. Prices are less wires and lamps.

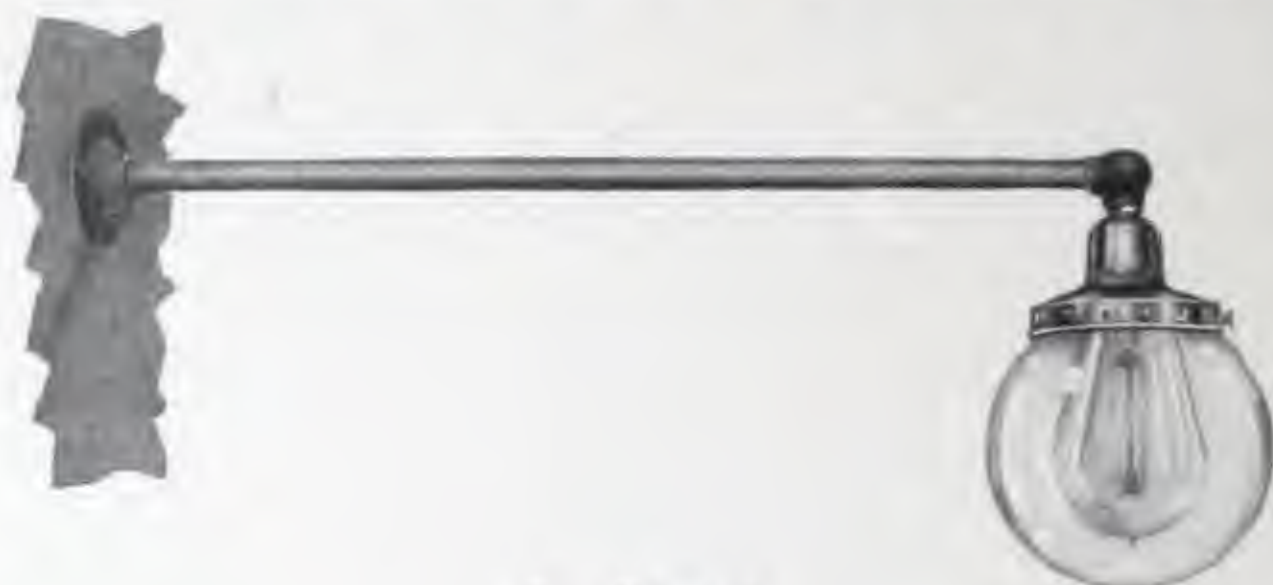


Cat. No. T832

Cat. No.		List Price
T831	With Medium Screw Base Socket and 12" x 7" Globe	\$8.80
T832	With Mogul Screw Base Socket and 12" x 9" Globe	9.00
T833	With 3-Light Cluster, 12" x 7" Globe	10.10
T834	" 4 " " 12" x 9" "	10.50

SCHEDULE II DISCOUNTS apply to all materials listed above

STREET LIGHTING FIXTURES



Cat. No. 990

Cat. No.		List Price
990	Complete with 10" x 6" Globe	\$6.50
991	" " 12" x 9" "	8.00
992	" " 10" x 6" " less Mast Arm and Fitting	5.00
993	" " 12" x 9" " " " "	6.50

Fixtures 990-993 have medium screw base socket with lamp grip, 40" mast arm of $\frac{3}{4}$ " iron pipe, fitting with porcelain wire openings, shade holder of black copper, and either 10" x 6", or 12" x 9" clear globe. Mogul screw base sockets may be ordered at an advance of 20c list. Iron parts are galvanized. For mast arm with single ornamental scroll add \$1.10 list; with double scroll, add \$2.20 list. With 10" x 6" globes, 250-watt lamps may be used; with 12" x 9" globes, 500-watt lamps. Sockets used are National Electrical Code Standard. Prices are less wires and lamps.



Cat. No. 5233

Cat. No.		List Price
5132	2-Light Multiple with 6 1/2" Holder only	\$4.00
5133	3 " " " 6 1/2" " "	4.25
5232	2 " " Complete, 8" x 6 1/2" Alabaster Globe	5.40
5233	3 " " " 8" x 6 1/2" " "	5.65

Fixtures 5132-5233 have Type 3 aluminum shell cluster for 50-watt carbon or 25-watt short base Tungsten lamps, 6 1/2" copper holder with or without 8" x 6 1/2" Alabaster globe, gooseneck of $\frac{1}{2}$ " iron pipe overhanging 30", and wall or pole fitting. Unless otherwise specified wall fitting is regularly supplied. Iron parts are black enamel. For $\frac{3}{4}$ " gooseneck, or mast arm see page 64; for fixture less gooseneck and fitting deduct 90c list; for clear instead of Alabaster globe, deduct 35c list. Clusters used are National Electrical Code Standard. Prices are less wires and lamps.

SCHEDULE II DISCOUNTS apply to all materials listed above

STREET LIGHTING FIXTURES



Cat. No. 133
With Globe—Inverted
Position



Cat. No. 133K
With Globe—Upright
Position



Cat. No. 145
With Globe

Fixtures 132-146 have aluminum shell cluster or porcelain socket with either medium or mogul screw base, and copper holders of indicated size ranging from 6½" to 9". They are especially intended for ornamental post work, and may be used in either upright or inverted position. Holders have cast iron supporting flange. For the upright position they are perforated, and have an inner ring extending above the rim which provides for drainage. 6" to 7" holders may be ordered tapped for iron pipe from ½" to 1½"; 8" and 9" holders, from ½" to 2½". Unless otherwise specified ½" size is regularly supplied. Iron parts are black enamel. In ordering specify the position intended, and size of tapped opening in the flange. Single unit fixtures are furnished with lamp grip. For appropriate globes see table at bottom of page. Clusters and sockets used are National Electrical Code Standard. Prices are less wires and lamps.

Cat. No.	TYPE 3 CLUSTER UNITS	List Price
132	2-Light Multiple with 6½" Holder only	\$3.10
133	3 " " " 6½" " "	3.35

Cat. No.	TYPE 3K CLUSTER UNITS	List Price
133K	3-Light Multiple with 9" Holder only	\$4.00
134K	4 " " " 9" " "	4.25
135K	5 " " " 9" " "	4.50
136K	6 " " " 9" " "	4.75
137K	7 " " " 9" " "	5.00

Cat. No.	SINGLE SOCKET UNITS	List Price
143	Medium Screw Base Socket and 6" Holder only	\$2.00
144	Medium Screw Base Socket and 7" Holder only	2.30
145	Medium Screw Base Socket and 8" Holder only	2.60
146	Mogul Screw Base Socket and 9" Holder only	3.00

ALABASTER GLOBE AND LAMP SPECIFICATIONS
FOR ABOVE FIXTURES

Cat. No.	Globe Size	Lamp Wattage	Cluster Units	Single Socket Units	List Price	Std. Pkg.
265	8" x 6½"	25	Type 3		\$1.40	18
266	10" x 6"	40-60		Med. Screw Base	2.00	12
267	12" x 7"	100-150		" " "	3.00	12
268	12" x 8"	150-250		" " "	3.00	12
269	12" x 9"	40	Type 3K		3.00	12
270	14" x 9"	400		Mogul Screw Base	4.00	8
271	16" x 9"	500		" " "	6.00	4

SCHEDULE II DISCOUNTS apply to all materials listed above including globes when ordered with fixtures; on globes only, Schedule IV discounts



STREET LIGHTING FIXTURES

Fixtures 5471-5481 have porcelain-lined weather-proof socket enclosed within a copper hood, firmly attached 15" porcelain enameled steel reflector, 4" aluminum globe holder, either 5" or 7" deep globe, gooseneck of $\frac{1}{2}$ " iron pipe formed at an angle of 45 degrees, and wall or pole fitting. Unless otherwise specified wall fitting is regularly supplied. Iron parts are black enamel. The device measures 39" from pole to lamp center. 5" globes will take 32 C.P. carbon filament, or 40-watt short base Tungsten lamps; 7" globes, 60-watt Tungsten lamps. For fixture less gooseneck and fitting deduct 90c list. Sockets used are National Electrical Code Standard. Prices are less wires and lamps.



Cat. No. 5471

Cat. No.	STREETHOODS—45 DEGREE	List Price
5471	Complete with 5" x 4" Globe	\$4.80
5481	" " 7" x 4" "	5.00

Fixtures T100-T252 have porcelain-lined socket with copper hood re-enforcing the socket shell, either 15" or 18" enameled steel reflector firmly attached to the hood by means of a clamping ring or globe holder, 8" x 5" or 10" x 6" globe, gooseneck of $\frac{1}{2}$ " iron pipe overhanging 30", and wall or pole fitting. Unless otherwise specified wall fitting is regularly supplied. Iron parts are black enamel. 8" x 5" globes are used with 15" reflector and take 100-watt lamps; 10" x 6" globes with 18" reflector, and take 250-watt lamps. For fixture less gooseneck and fitting deduct 90c list. Sockets used are National Electrical Code Standard. Prices are less wires and lamps.



Cat. No. T250

Cat. No.	STREETHOODS—90 DEGREE	List Price
T100	Complete with 8" x 5" Globe	\$5.50
T250	" " 10" x 6" "	7.00
T102	" less 8" x 5" " and Holder	3.50
T252	" " 10" x 6" " " "	4.00
T103	15" Reflector, Socket, and Cover only	2.85
T104	18" " " " " "	3.05

SCHEDULE II DISCOUNTS apply to all materials listed above

STREET LIGHTING FIXTURES



Cat. No. 802

Fixtures 802-806 are standard reflector sockets with flat cone reflector of indicated dimensions, metal cross arm, porcelain knobs, separable connection with weather-proof outlet for line wires, and **lamp grip**. Top of fitting is tapped for $\frac{1}{2}$ " iron pipe. They are intended for outdoor lighting on low-voltage multiple circuits. Iron parts are galvanized. For fixture with shock absorber add 10c list. Sockets used are National Electrical Code Standard. Prices are less wires and lamps.

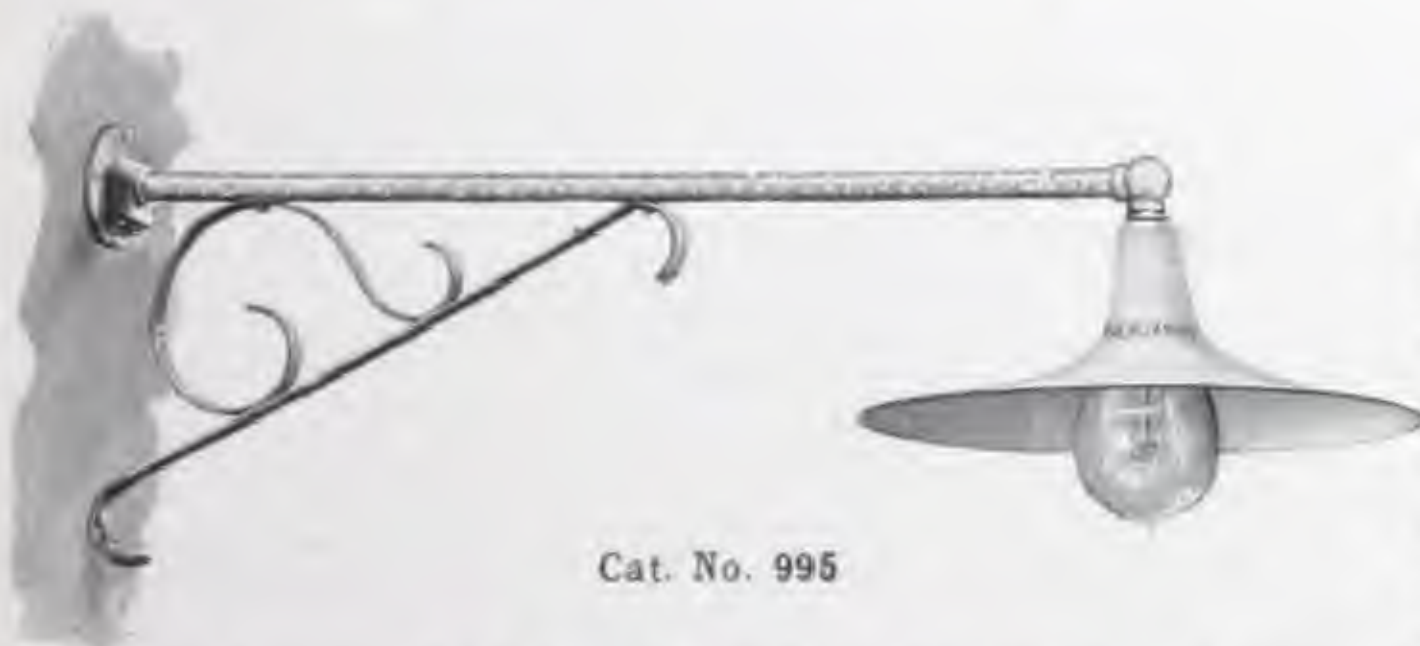
Cat. No.	Reflector Size	Lamp Size	List Price
802	14"	25-40 W.	\$3.30
803	16"	60-100 W.	3.60
804	18"	150-250 W.	4.20
805	20"	400 W.	5.00
806	22"	400-500 W.	5.60



Cat. No. 815

Fixtures 814-818 are substantially those described above except that they have special fitting for center suspension. The latter is provided with porcelain outlets for line wires. Other specifications there given apply.

Cat. No.	Reflector Size	Lamp Size	List Price
814	14"	25-40 W.	\$3.80
815	16"	60-100 W.	4.10
816	18"	150-250 W.	4.70
817	20"	400 W.	5.50
818	22"	400-500 W.	6.10



Cat. No. 995

Fixtures 995-999 have 40" mast arm of $\frac{3}{4}$ " iron pipe with ornamental scroll, and fitting with porcelain wire openings. For mast arm with double ornamental scroll add \$1.10 list; for plain

mast arm less scroll, deduct \$1.10 list. For further information see fixtures above.

Cat. No.	Reflector Size	Lamp Size	List Price
995	14"	25-40 W.	\$5.20
996	16"	60-100 W.	5.50
997	18"	150-250 W.	6.10
998	20"	400 W.	6.90
999	22"	400-500 W.	7.50

SCHEDULE II DISCOUNTS apply to all materials listed above

STREET LIGHTING FIXTURES

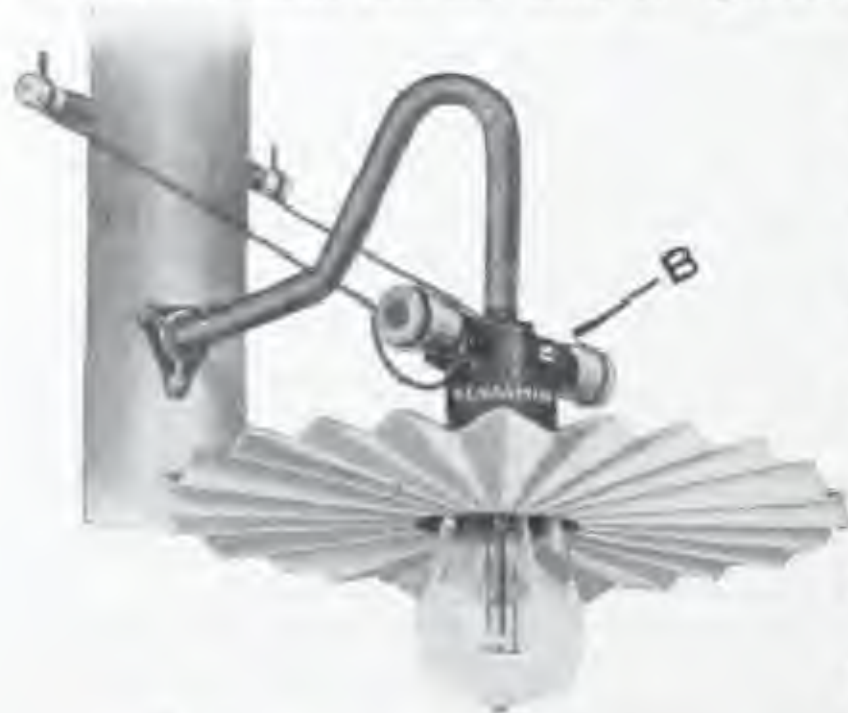
Fixtures 1240-1244 have 20" 2-way reflector, and are listed under three forms designated "A," "B," and "C" respectively, pages 44 and 45. The first and second are low-voltage fixtures with medium screw base sockets for multiple circuits; the third is a high-voltage fixture with mogul screw base socket for series circuits. They are intended for 100-watt lamps. Fixtures for 250-watt lamps may be ordered without change in price. Multiple sockets have lamp grip. Prices are less wires and lamps.



Cat. No. 1240

Cat. No.	List Price
1240 Reflector and Socket only, Concealed Wiring (A)	\$7.00
1242 Reflector and Socket only, Open Wiring (B)	7.50
1244 Reflector and Socket only, Series Film Cut-Out (C)	9.50

Fixtures 1246-1256 have 18" one-piece radial wave reflector with beaded edge. The usual raw surface of the latter is therefore eliminated, thus affording protection against the incursions of rust. The open wiring with cast iron cover, cross arm with porcelain knobs, and 40" gooseneck of 3/4" iron pipe with pole fitting is shown.



Cat. No. 1252

They are intended for 100-watt lamps. 22" reflector for 250- to 500-watt lamps may be ordered at an advance of \$1.20 list. Other specifications given above apply.

Cat. No.	List Price
1246 Reflector and Socket only, Concealed Wiring (A)	\$4.50
1248 Complete with 40" Gooseneck Concealed Wiring (A)	5.80
1250 Reflector and Socket only, Open Wiring (B)	5.00
1252 Complete with 40" Gooseneck, Open Wiring (B)	6.30
1254 Reflector and Socket only, Series Film Cut-Out (C)	7.00
1256 Complete with 40" Gooseneck, Series Film Cut-Out (C)	8.30



Cat. No. 1260

Fixtures 1258-1268 have hooded radial wave reflector. The concealed wiring with cast iron cover, and 40" ornamental bracket with fitting having porcelain wire openings is shown. For further information see fixture at top of page.

Cat. No.	List Price
1258 Reflector and Socket only, Concealed Wiring (A)	\$5.50
1260 Complete with 40" Bracket, " (A)	8.10
1262 Reflector and Socket only, Open Wiring (B)	6.00
1264 Complete with 40" Bracket, " (B)	8.60
1266 Reflector and Socket only, Series Film Cut-Out (C)	8.00
1268 Complete with 40" Bracket, " (C)	10.60

For center suspension, gooseneck, or bracket, see page 64

SCHEDULE II DISCOUNTS apply to all materials listed above

STREET LIGHTING FIXTURES

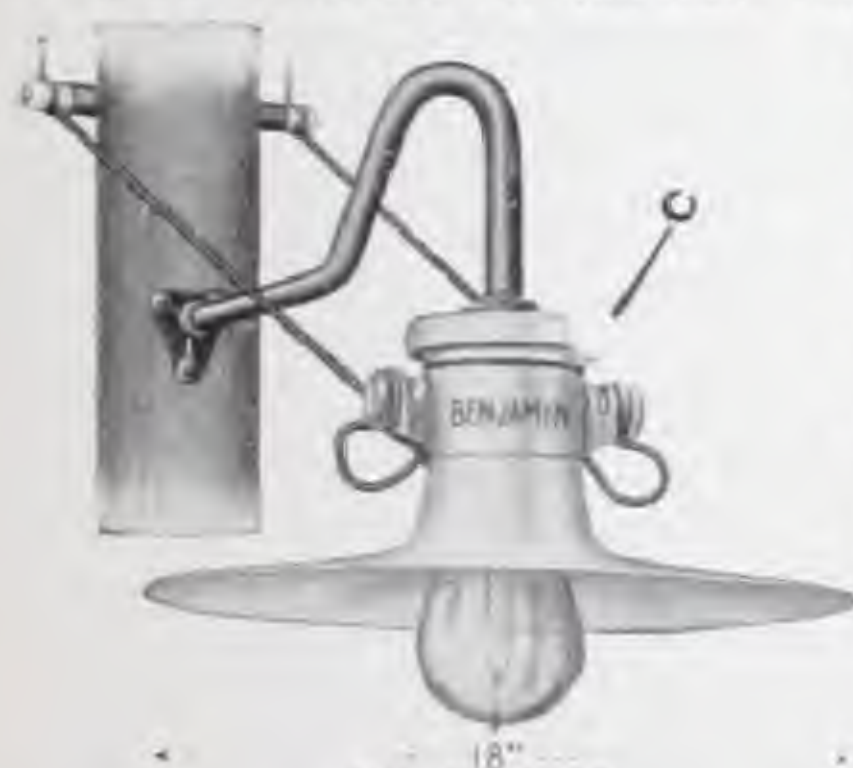
Fixtures 1270-1280 have 18" hooded radial wave reflector. The open wiring with series film cut-out socket and center suspension is shown. They are intended for 100-watt lamps. For further information see top of page 44. Sockets used are National Electrical Code Standard. Prices are less wires and lamps.



Cat. No. 1280

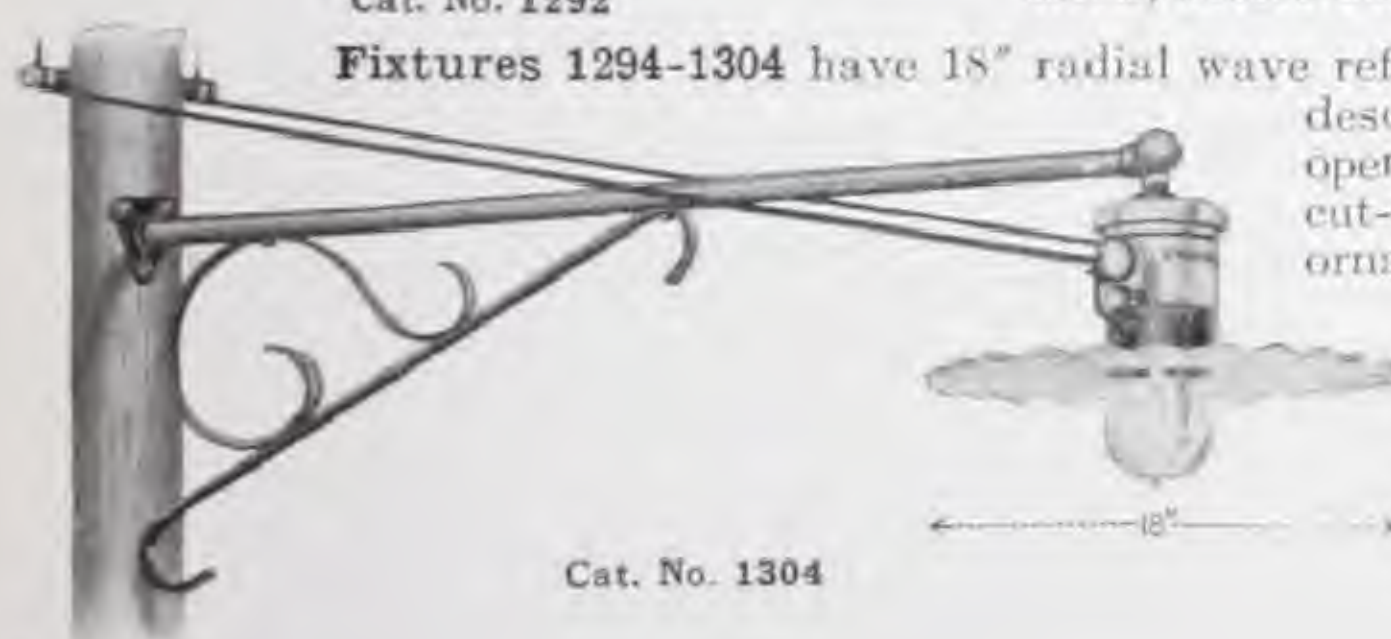
Cat. No.		List Price
1270	Reflector and Socket only, Concealed Wiring..... (A)	\$5.50
1272	Complete with Center Suspension, Concealed Wiring..... (A)	6.00
1274	Reflector and Socket only, Open Wiring..... (B)	6.00
1276	Complete with Center Suspension, Open Wiring..... (B)	6.50
1278	Reflector and Socket only, Series Film Cut-Out..... (C)	8.00
1280	Complete with Center Suspension, Series Cut-Out..... (C)	8.50

Fixtures 1282-1292 have 18" flat cone reflector. The open wiring with series film cut-out socket, and 40" gooseneck of $\frac{3}{4}$ " iron pipe with pole fitting is shown. They are intended for 100-watt lamps. 20" reflectors for 250-watt lamps may be ordered at an advance of 60c list; 22" reflectors, for 500-watt lamps, at an advance of \$1.20 list. For further information see fixture above.



Cat. No. 1292

Cat. No.		List Price
1282	Reflector and Socket only, Concealed Wiring..... (A)	\$4.50
1284	Complete with 40" Gooseneck, Concealed Wiring..... (A)	5.80
1286	Reflector and Socket only, Open Wiring..... (B)	5.00
1288	Complete with 40" Gooseneck, Open Wiring..... (B)	6.30
1290	Reflector and Socket only, Series Film Cut-Out..... (C)	7.00
1292	Complete with 40" Gooseneck, Series Film Cut-Out..... (C)	8.30



Cat. No. 1304

Fixtures 1294-1304 have 18" radial wave reflector with beaded edge described on page 44. The open wiring is series film cut-out socket, and 40" ornamental bracket with fitting is shown. They are intended for 100-watt lamps. 22" reflectors for 250- to 500-watt lamps may be ordered at an advance of \$1.20 list.

Cat. No.		List Price
1294	Reflector and Socket only, Concealed Wiring..... (A)	\$4.50
1296	Complete with 40" Bracket, " "..... (A)	7.10
1298	Reflector and Socket only, Open Wiring..... (B)	5.00
1300	Complete with 40" Bracket, " "..... (B)	7.60
1302	Reflector and Socket only, Series Film Cut-Out..... (C)	7.00
1304	Complete with 40" Bracket, Series " "..... (C)	9.60

For center suspension, gooseneck, or bracket, see page 64

SCHEDULE II DISCOUNTS apply to all materials listed above

STREET LIGHTING FIXTURES

Fixtures 1306-1310 have 18" enameled steel reflector incorporating globe holder, and 8"x6½" glass globe, listed under the three forms described on page 44. They are intended for 100-watt lamps. Fixtures for 250-watt lamps may be ordered without change in price. The open wiring with series film cut-out socket is shown.

For further information on various forms of suspension see page 64. Prices are less wires and lamps.



Cat. No. 1310

Cat. No.		List Price
1306	Complete, Concealed Wiring (A)	\$7.50
1308	" Open Wiring (B)	8.00
1310	" Series Cut-Out (C)	10.00



Cat. No. T934

Fixtures T934-T944 have 22" porcelain enameled steel reflector, surmounting hood, 13¼" glass globe with 12" opening, metal cross arm with porcelain knobs, and weather-proof suspension block. Ample ventilation is provided. They are intended for low-voltage multiple circuits and have mogul screw base sockets. With fixture complete 100-watt lamps may be used; with fixture less globe, 250-watt lamps. Suspension strap shown page 45 may be ordered instead of connecting block without change in price. For lamp grip add 40c list; for fixture less suspension fitting and cross arm deduct \$1.50. Iron parts are galvanized. Prices are less lamps.

Cat. No.		List Price
T934	4-Light, Complete	\$19.50
T944	4 " " " less Globe and Holder	14.00

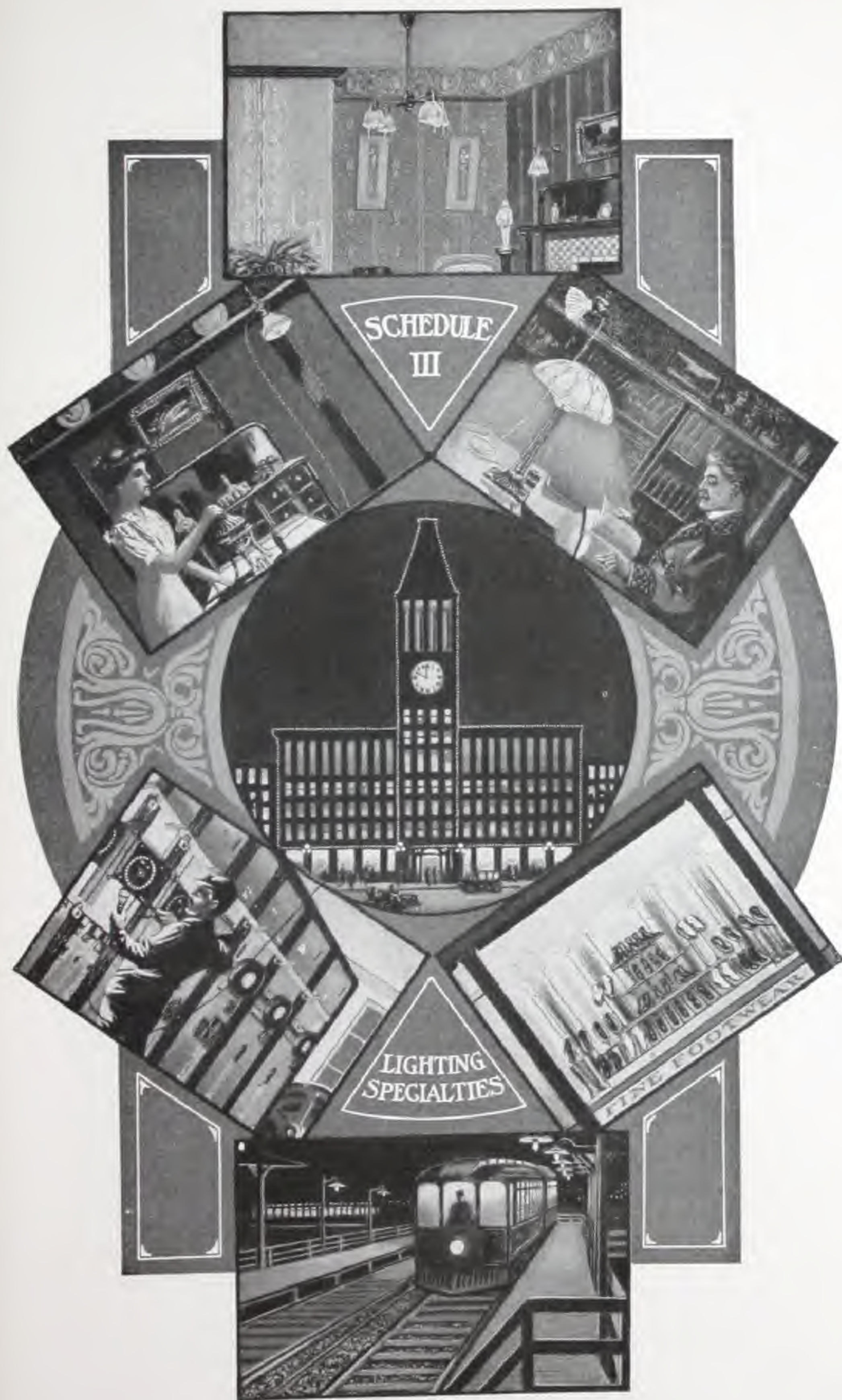


Cat. No. T984½

Fixtures T984½-T994½ are substantially those described above except that they have span-wire suspension supported by two high-tension insulators, and are provided with series film cut-out socket. They are intended for high-voltage series circuits. Iron parts are galvanized. Prices are less lamps.

Cat. No.		List Price
T984½	4-Light, Complete	\$23.00
T994½	4 " " " less Globe and Holder	18.00

SCHEDULE II DISCOUNTS apply to all materials listed above



SCHEDULE
III

LIGHTING
SPECIALTIES

WALKER
1644 19
2200 20
2000 21
FINE FOOTWEAR

ATTACHMENT PLUGS



Bushing for 903A
Counterbored for
Heavy Cord



Cat. No. 903



Bushing for 903C
with Set Screw
Insulated Tip

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
*903	Attachment Plug	\$0.25	100	9
*903A	" " with Counterbored Bushing	.25	100	9
*903C	" " Insulated Set Screw Tip	.28	100	10
*903E	" " $\frac{1}{32}$ " Bushing	.25	100	10

The Attachment Plugs 903-903E are the neatest and most practical attachment plugs upon the market.

An ingeniously devised swivel shell—a feature protected by patents—makes it possible to attach and remove the plug quickly and securely without turning the

device or twisting the cord. Each is provided with an effectual cord-gripping means contained in the cap, and will take either plain or re-enforced cord up to $1\frac{3}{32}$ " in diameter. No. 903A has a counterbored bushing for accommodating heavy asbestos heater cord. No. 903C has a metal set screw with insulated tip for holding the outer braid. The entire cord is gripped—the ends thus kept from fraying. No. 903E is intended for use with small cord.



Cat. No. 904



Cat. No. 907

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
*904	Attachment Plug with Moulded Ring	\$0.28	100	10
907	" " Solid	.22	100	9

The Attachment Plug No. 904 is like No. 903, except that it has a moulded ring instead of fibre washer, and a bushing of smaller diameter. It is thus easier to insert the plug in a socket, where as in the case of certain forms of glassware, the available space for attaching is limited. No. 907 is a solid plug with the cord-gripping feature of No. 903, but has no swivel shell.

*National Electrical Code Standard.

SCHEDULE III DISCOUNTS apply to all materials listed above

CURRENT TAPS



Cat. No. 95



Cat. No. 96

Cat. No.	BINDING SCREW CONNECTIONS		List Price	Std. Pkg.	Wt. Lbs.
*95	Current Tap, Multiple		\$0.50	50	9 1/2
*95 1/2	" " Series		.50	50	9 1/2
PLUG CONNECTIONS AND SWITCH					
96	Current Tap, Multiple		\$0.80	50	10
96 1/2	" " Series		.80	50	10
97	" " Plug only		.25	50	1 1/2

The Current Taps 95-95 1/2 have swivel shell whereby they may be attached and fixed in any desired position for leading out the cord, without turning the device. Porcelain parts are concealed. The liability to breakage is therefore minimized, and the finish may be made to correspond with the fixture. A bead on the shell permits the transfer of any standard shade holder, thus securing the proper relation of the shade to the lamp. A reliable grip holds the cord securely. Bushing with 1 1/2" opening is regularly supplied.

Nos. 96-96 1/2 likewise have swivel shell, and are designed to facilitate the attaching and detaching of portable devices. They are provided with lever switch which in case of No. 96 controls the lamp. The series form is adapted for use with devices where it is necessary to place the lamp in series to act as resistance. By means of the lever switch the plug connection may be short-circuited and the lamp left burning full. Standard finish is polished brass.

PENDENT SWITCHES



Cat. No. 3326

Cat. No.	List Price	Std. Pkg.	Wt. Lbs.
*3326 Pendent Switch	\$0.50	100	22

The Pendent Switch 3326 is a simply constructed, reliable, single-pole device, operated by a single button rocker arm. It is provided with a double, i.e., a lower and an upper cord grip. The former engages each of the leads, the latter prevents raveling by tightly closing in upon the outer braid. Because of this efficient gripping means, the binding posts are relieved of all strain from the conductors. It is easily wired. Standard finish is brushed brass. For any other finish except polished brass add 10c list.

*National Electrical Code Standard.

SCHEDULE III DISCOUNTS apply to all materials listed above

SOCKET EXTENSIONS



Cat. No. 91

Cat. No.	List Price	Std. Pkg.	Wt. Lbs.
*91 Socket Extension only . . .	\$0.25	50	5

The Socket Extension 91 offers a convenient means for attaching glassware where the socket outlets do not otherwise permit it. The shell is provided with a bead for taking standard shade holders. It increases the length of the socket only $1\frac{1}{4}$ inches, and is especially serviceable in connection with flush sockets or ceiling receptacles. Standard finish is dipped brass. For other finishes add 3c list.

TUNGSTEN ADAPTERS



Cat. No. 99

Cat. No.	List Price	Std. Pkg.	Wt. Lbs.
*99 Tungsten Adapter	\$0.70	25	5

The Tungsten Adapter 99 is designed for changing the angle of lamps to the vertical where individual reflectors are desired. An efficient light distribution is thus secured. A swivel shell permits the complete revolution of the socket, while the hinged joint allows a wide range of angular adjustment. It may therefore be used to advantage in any case requiring a change in the angle of attaching. Standard finish is brushed brass.

TWO-LIGHT ADAPTERS

Cat. No. 922 $\frac{1}{2}$

Cat. No.	List Price	Std. Pkg.	Wt. Lbs.
*822 Multiple and Series, $\frac{3}{8}$ " Bushing	\$1.00	10	5
922 " with Plug, Wired	1.25	10	5
922 $\frac{1}{2}$ Series " " " "	1.25	10	5

The Two-Light Adapters 822-922 $\frac{1}{2}$ are intended for doubling the outlets of a given socket, while adapting them for individual reflectors. No. 922 $\frac{1}{2}$ is especially serviceable for burning two lamps in series. They are furnished either with plug, wired, or with $\frac{3}{8}$ " bushing for stem, not wired. In the former case they are attached by means of a swivel shell. Outlets are at an angle of 14 degrees with the vertical, and with suitable reflectors permit the use of 25-, 40-, or 60-watt lamps. Standard finish is polished brass.

*National Electrical Code Standard

SCHEDULE III DISCOUNTS apply to all materials listed above

ADJUSTABLE SOCKET CLUSTERS



Cat. No. 853



Cat. No. 952

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
*852	2-Light with $\frac{3}{8}$ " Bushing	\$1.00	10	5
*853	3 " " " "	1.30	10	6
*854	4 " " " "	1.60	10	7
952	2-Light with Plug, Wired	\$1.25	10	5
953	3 " " " "	1.55	10	6
954	4 " " " "	1.85	10	7

The Adjustable Socket Clusters 852-954 are designed for use with ceiling or pendent dome fixtures, stand lamps in dining rooms, reading rooms, etc., where it is desirable to adjust and fix the lights in special relation to the sides of the dome or reflector. The socket may be turned to any position between two points 180 degrees apart, and locked by means of a screw. By removing the socket cap, easy access is gained to the binding screws. They are therefore easily wired. 2- and 4-light clusters may be ordered wired two in series for operating 110-volt Tungsten lamps on 220-volt circuits. Standard finish is polished brass.

ROTATING SOCKETS



Cat. No. 9001



Cat. No. 9021



Cat. No. 9002

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
*9001	1-Light, Unbalanced	\$0.70	25	7
*9021	1 " Outside Balance	.90	25	20
*9002	2 " " "	1.00	25	7
9013	3 " " "	1.30	25	8
9024	4 " " "	1.60	25	9

The Rotating Sockets 9001-9024 are designed for effectively directing and distributing the light of a given installation. This is accomplished by the combined use of the sockets and Holophane-D'Olier half-shades, capable of revolving around the axis of the lamp. They are particularly adapted for factory and office lighting, where it is desirable to concentrate the light on a limited area, at the same time protect the eye against direct rays. Where no strong light is required, an appreciable saving may be effected by the use of low candle power lamps. Standard finish is polished brass. For nickel or copper plate, add 10c list.

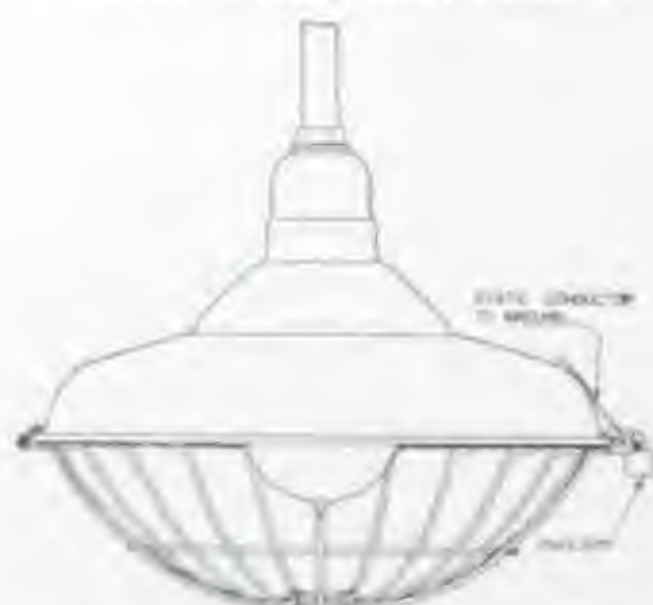
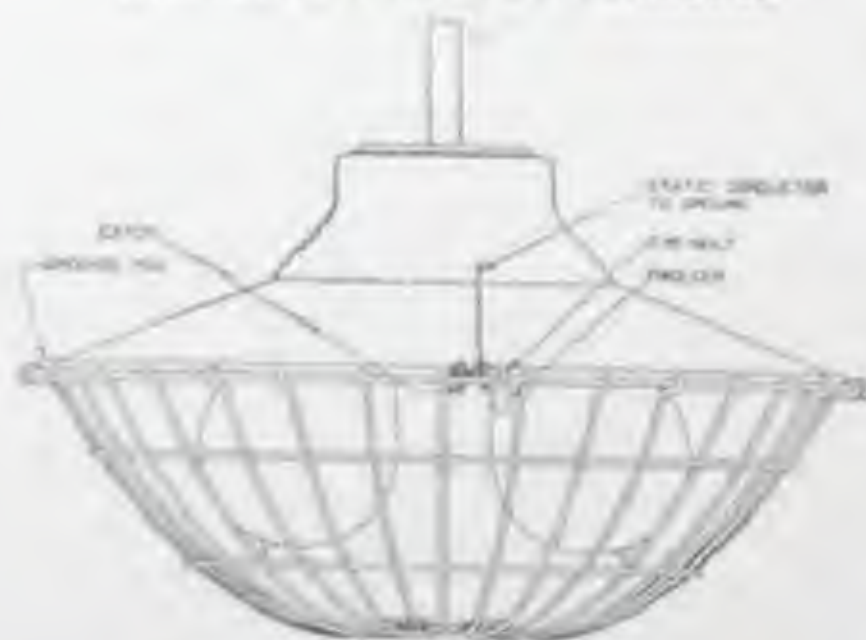
*National Electrical Code Standard.

SCHEDULE III DISCOUNTS apply to all materials listed above

PENDENT LOCK GUARDS



Cat. No. 1386

1
Attached to Deep Bowl Reflector2
Attached to Shallow Bowl Reflector3
Attached to Flat Cone Reflector

Cat. No.	Size Diam.	Size Depth	List Price	Std. Pkg.	Wt. Lbs.
1378	7"	1 1/4"	\$1.30	10	3
1380	8"	1 1/2"	1.40	10	4
1382	9"	1 3/4"	1.50	10	5
1384	11"	1 3/4"	1.60	10	6
1386	12"	2 3/4"	1.70	10	8
1388	14"	4"	1.80	10	11
1390	15"	6 3/4"	2.20	10	15
1392	16"	5"	2.50	10	16
1394	18"	5 3/4"	3.00	10	25
1396	20"	7"	3.60	10	27
1398	22"	7 1/2"	4.20	10	31

The Pendent Lock Guards 1378-1398 have a grooved band and eye-bolt for attaching to the bead of an enameled steel reflector. This band has hinged connection, and a catch on the opposite side for holding the guard in position. Padlock may be passed through the rim and eye-bolt for locking. Lock-nut on the bolt furnishes means for attaching ground wire where it is desirable to protect lamps against static currents. Illustration No. 1 is a sectional view of half of guard showing hinge and catch; No. 2, opposite half of guard showing hinge, and method of attaching ground wire and padlock; No. 3, full front view showing locking means in perspective. These pendent guards cover the entire range of Benjamin standard fixtures with enameled steel reflectors. Their depth is designed with reference to the largest lamps likely to be used. The diameter of the reflector determines the diameter of the guard. Flat cone and bowl type reflectors of the same diameter will take the same guard. Wire parts are of strong steel, tinned after welding. Fittings are galvanized. Prices are less brass padlock shown. For the latter with two keys add 30c list.

SCHEDULE III DISCOUNTS apply to all materials listed above

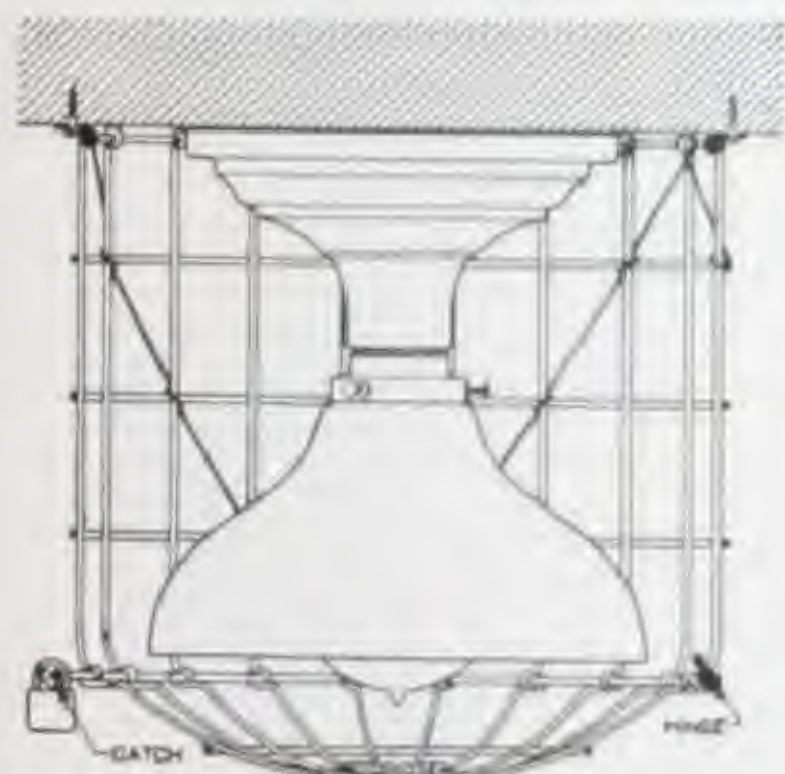
CEILING LOCK GUARDS



Cat. No. 1356

Cat. No.	Size Diam.	Size Depth	List Price	Std. Pkg.	Wt. Lbs.
†1350	10"	7"	\$1.20	10	8
†1352	12"	8"	1.40	10	10
†1354	14"	9"	1.60	10	13
1356	16"	6 3/4"	1.80	10	14
1358	18"	8 3/4"	3.00	10	18
1360	20"	11"	4.00	10	29

The Ceiling Lock Guards 1350-1360 have hinge adapted for attaching to the ceiling by two wood screws, and a fastening plate opposite the hinge, likewise attached by screws. The plate is designed to receive a loop on the guard, thus providing supporting means. Padlock may be used if desired. When in position, guard renders the attaching screws inaccessible; released, it swings clear of the fixture, making it easy to clean or change lamps. Wire parts are of strong steel, tinned after welding. Fittings are galvanized. Guards with dagger (†) are furnished on special order only, and require two weeks' notice. Prices are less brass padlock shown. For the latter with two keys add 30c list.



Cat. No. 1364

Cat. No.	Cylindrical Guard Diam.	Cylindrical Guard Depth	Hinged Guard Diam.	Hinged Guard Depth	List Price	Std. Pkg.	Wt. Lbs.
†1362	11"	8"	11"	1 3/4"	\$1.60	10	12
†1364	11"	10"	11"	1 3/4"	1.70	10	13
†1366	11"	12"	11"	1 3/4"	1.80	10	16
†1368	14"	10"	14"	4"	2.20	10	18
†1370	14"	12"	14"	4"	2.50	10	20
†1372	18"	12"	18"	5 3/4"	4.20	10	26
†1374	18"	16"	18"	5 3/4"	4.80	10	32

The Two-Piece Ceiling Lock Guards 1362-1374 have strong cylindrical upper guard adapted for attaching to the ceiling by three or more screws, and a lower or shallower portion hinged to it at the bottom. They are particularly designed for single unit ceiling fixtures. Where necessary to prevent removal, screws may

be soldered in position. Lower part may be swung clear of the fixture while changing or cleaning lamps. Wire parts are of strong steel, tinned after welding. Fittings are galvanized. Guards with dagger (†) are furnished on special order only, and require two weeks' notice. Prices are less brass padlock shown. For the latter with two keys add 30c list.

FIBRE HAND PORTABLES



Cat. No. 160P

Cat. No.	List Price	Std. Pkg.	Wt. Lbs.
*160P Fibre Hand Portable	\$2.00	20	18

The Hand Portable 160P has a removable lamp guard of hard fibre, the parts of which are formed edgewise, radially with the lamp. The distribution of the light is therefore as free as with any metallic guard. The porcelain socket is deeply embedded in the body of the wooden handle. There are no exposed metal parts to cause short-circuits or grounds. It thus offers protection alike to workman and electrical apparatus.

*National Electrical Code Standard.

SCHEDULE III DISCOUNTS apply to all materials listed above

MOISTURE-PROOF OUTLET BOXES



Cat. No. 634



Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
634	With 5" Deep Globe, and Holder Tapped $1\frac{1}{2}$ ", 2-Way.....	\$2.00	20	47
635	" 5" " " " " " $1\frac{1}{2}$ ", 3- ".....	2.10	20	47
636	" 5" " " " " " $1\frac{1}{2}$ ", 4- ".....	2.20	20	47
637	" 5" " " " " " $3\frac{3}{4}$ ", 2- ".....	2.00	20	47
638	" 5" " " " " " $3\frac{3}{4}$ ", 3- ".....	2.10	20	47
639	" 5" " " " " " $3\frac{3}{4}$ ", 4- ".....	2.20	20	47

The Moisture-Proof Outlet Boxes 634-639 have galvanized cast iron box with threaded pipe connection, gasket joints, 4" aluminum globe holder, 5" x 4" glass globe, and No. 6B receptacle. Prices do not include lamp and aluminum reflector shown; for the latter add 30c list. For device less globe and holder deduct \$1.10 list; for 7" x 4" globe, instead of 5", for 60-watt lamps, add 30c list; for 7" x 4 $\frac{1}{4}$ " for 100-watt lamps, add 40c list. Sockets used are National Electrical Code Standard.

WEATHER-PROOF SOCKET FIXTURES



Cat. No. 4161



Cat. No. 628

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
4161	Complete with 6" x 3 $\frac{1}{4}$ " C.R.I. Globe.....	\$1.45	20	22
628	" " 5" x 4" Globe.....	1.70	20	26
629	" " 7" x 4" ".....	2.00	20	29

Fixture 4161 has weather-proof porcelain-lined socket with aluminum shell, 3 $\frac{1}{4}$ " shade holder, and 6" C.R.I. Globe. For socket and holder only, see page 56. Fixture 628-629 have 4" instead of 3 $\frac{1}{4}$ " globe holder, gasket, either 5" or 7" deep globe, and are moisture-proof. Except with No. 628, 60-watt lamps may be used. Sockets used are National Electrical Code Standard. Prices are less lamps.

SCHEDULE III DISCOUNTS apply to all materials listed above



Cat. No. 98

REDUCERS

Cat. No.	List Price	Std. Pkg.	Wt. Lbs.
98 Reducer	\$0.25	50	3 1/2

The Reducer 98 is designed for adapting mogul screw base sockets for the use of medium screw base lamps. When attached, the center contact is lowered one-half inch, thus bringing the filament of the small base lamp to its proper position. Both threaded shells are made of copper.

LAMP GRIPS



The Benjamin Lamp Grip is a device intended to forestall the loosening and falling of lamps. A simple spring means engages the lamp base with sufficient force to hold it in position. It thus prevents loss from breakage, saves the time necessary for re-adjusting, and renders accidents in dangerous quarters where the lamp might strike the workman, impossible. It is of particular value in the industrial field, places exposed to the wind, on steam cars, street cars, steamships, or wherever a lamp socket is subjected to excessive vibration.

Further information on the range of its uses may be found by consulting the different devices in which it is incorporated.

TUNGSTEN SHOCK ABSORBERS



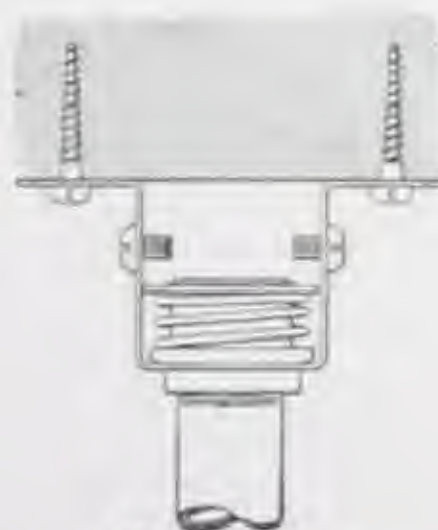
Cat. No. 3340

Cat. No.	List Price	Std. Pkg.	Wt. Lbs.
*3340 Absorber complete with Canopy Support	\$0.50	50	12
*3350 Absorber with Strap tapped for 3/8" Insulating Joint	.35	50	10
*3351 Absorber with Strap for 3/8" Iron Pipe	.35	50	10
*3352 Absorber with Suspension Loop	.35	50	10
*3353 " Bipod Form (less Loop and Strap)	.30	50	8

The Tungsten Shock Absorbers 3340-3353 are designed for the protection of Tungsten lamps against sudden jars or destructive vibrations. They are furnished both with and without canopy support. The former has 3/4" brass casing, and requires canopy with 7/8" slip. Absorber with 7/8" square support may be ordered at an advance of 10c list. Springs of different degrees of tension are furnished for fixtures of different weights. Where no weight is specified, spring suitable for 5-pound fixture will be furnished. Prices are less canopy. Iron parts are galvanized. For weather-proof absorber see page 65.



Strap Form



Bipod Form



Loop Form

*National Electrical Code Standard.

SCHEDULE III DISCOUNTS apply to all materials listed above

PORCELAIN-LINED SOCKETS



Cat. No. 4200

660 W.

600 V.



Cat. No.	MEDIUM SCREW BASE				List Price	Std. Pkg.	Wt. Lbs.
*4200	With Aluminum Shell, tapped	1 1/2"			\$0.70	50	15
*4201	" " " " "	3/8"			.70	50	16
*4201M	" " " " Male	3/8"			.70	50	15
*4202	" Brushed Brass " tapped	1 1/2"			.70	50	15
*4203	" " " " "	3/8"			.70	50	15

The Porcelain-Lined Sockets 4200-4203 are strong and highly insulated weather-proof sockets for medium screw base lamps. Socket terminals are widely apart. Binding terminals are separated from the enclosing shell by porcelain wall. A separable base permits ready access to the binding screws. Its parts are firmly held in place by a threaded clamping ring, or by the holders attached. They are thus serviceable for both in- and out-door work, e.g., where wires are run in exposed conduit; in outlining buildings; with large unit lamps in one-light fixtures; on 600-volt street railway circuits; in short, wherever there is need of a highly insulated keyless socket. Sockets will be supplied on special order in copper. For lamp grip add 10c list. For holders see bottom of page. Brass holders are ventilated and have spring clips which prevent their loosening and falling.



Socket with Holder



Cat. No. 4242

Cat. No.	ALUMINUM HOLDERS				List Price	Std. Pkg.	Wt. Lbs.
4216	2 1/4"	Form "O" Holder only			\$0.20	50	3
4216	2 1/4"	" " "H" " "			.30	50	3
4217	3 1/4"	" " "A" " "			.35	50	3
4239	4"	Holder only			.50	50	4

BRUSHED BRASS HOLDERS WITH SPRING CLIP							
4238	2 1/4"	Form "O" Holder only			\$0.25	50	2
4240	2 1/4"	" " "H" " "			.35	50	3
4242	3 1/4"	" " "A" " "			.40	50	8
4244	3 1/4"	" " "H" " "			.50	50	7
4246	4"	Holder only			.60	50	9
4248	5"	" " " " "			.80	50	9
4250	6"	" " " " "			1.10	50	13

*National Electrical Code Standard.

SCHEDULE III DISCOUNTS apply to all materials listed above including holders when ordered with sockets; on holders only, Schedule IV discounts

PORCELAIN-LINED SOCKETS



Cat No. 4211



Cat. No. 4228

MOGUL SCREW BASE

Cat. No.	MOGUL SCREW BASE	List Price	Std. Pkg.	Wt. Lbs.
*4210	With Brushed Brass Shell, tapped $\frac{3}{8}$ "	\$1.40	20	12
*4211	" " " " and $3\frac{1}{4}$ " Form "A"			
	Holder, tapped $\frac{3}{8}$ "	1.75	20	14
*4212	With Brushed Brass Shell and 4" Holder, tapped $\frac{3}{8}$ "	1.90	20	15
*4228	" " " " " " two-piece Holder, tapped $\frac{3}{8}$ "	2.00	20	18

The Porcelain-Lined Sockets 4210-4228 are especially adapted for the use of mogul screw base lamps. They are highly insulated, keyless sockets with a rating of 660 watts—600 volts. No. 4228 is the same as No. 4210 except that it has a two-piece holder for glassware designed to be supported from the inside, such as Alba reflectors and hemispheres. Both sockets may be ordered tapped $\frac{1}{2}$ " without change in price. For **copper** casings and holders add 10 per cent list.

PORCELAIN SOCKETS

Cat. No. 69
Open Terminals

Cat. No. 4274
Brass Shell



Socket with Holder and Fitting

MOGUL SCREW BASE

Cat. No.	MOGUL SCREW BASE	List Price	Std. Pkg.	Wt. Lbs.
69	One-piece Socket, Open Terminals	\$0.70	20	9
*169	" " Concealed Terminals	.70	20	9
4274	With Brass Cover, Bushing tapped $\frac{3}{8}$ "	1.00	20	10
4276	" " " " " $\frac{1}{2}$ "	1.00	20	10
3846	Cast Fitting for Sockets 69 and 169, tapped $\frac{1}{2}$ "	.15	20	5
3847	" " " " 69 " 169, " $\frac{3}{8}$ "	.15	20	5
2569	W. P. Fitting for Socket 169, tapped $\frac{3}{8}$ "	.20	20	4
2669	" " " " 169, " $\frac{1}{2}$ "	.20	20	4
2069	Brass Holder, "A", for Sockets 69 and 169, $3\frac{1}{4}$ "	.35	20	3
2070	" " "A", " Socket 4274, $3\frac{1}{4}$ "	.35	20	3

The Porcelain Sockets 69-4276 are intended for mogul screw base lamps. Nos. 69 and 169 are adapted for attaching to a surface or bracket by means of screws passing through the base. Screw holes are spaced 1 $\frac{1}{2}$ " on centers. Nos. 4274 and 4276 have brass cover with bushing, and are adapted for interior work. Wires in No. 69 lead in at the sides; in other sockets, at the base. They have spring center contact, and binding screws are accessible from the central opening. They are one-piece sockets for low-voltage circuits not requiring cut-out or short-circuiting mechanism. With fittings, No. 8-32 machine screws are furnished. For **lamp grip** add 10c list. Iron parts are galvanized.

*National Electrical Code Standard.

SCHEDULE III DISCOUNTS apply to all materials listed above

ANGLE SOCKETS



Cat. No. 413



Cat. No. 597

Cat. No.			List Price	Std. Pkg.	Wt. Lbs.
*411	Keyless Socket,	$\frac{1}{8}$ "	\$0.35	50	8
*451	" "	$\frac{1}{4}$ "	.40	50	8
*431	" "	$\frac{3}{8}$ "	.40	50	8
413	Key Socket,	$\frac{1}{8}$ "	\$0.38	50	8
453	" "	$\frac{1}{4}$ "	.43	50	8
433	" "	$\frac{3}{8}$ "	.43	50	8
597	Pull Socket,	$\frac{1}{8}$ "	\$0.65	50	8
598	" "	$\frac{1}{4}$ "	.71	50	8
599	" "	$\frac{3}{8}$ "	.71	50	8

The Angle Sockets 411-599 are designed for fixture, bracket, window, or show case lighting, where the axis of the lamp is desired at an angle of 90 degrees with the attaching surface. They render angle nozzles unnecessary; thus make wiring easy. Nos. 597-599 are pull angle sockets with a reliable double break in series. Supporting bushing is attached to main shell. Cap connection is therefore relieved of all strain. The pull member is supplied with a short length of metal ribbon passing between reflector and lamp. This permits a comparatively straight downward pull regardless of size and form of reflector. Standard length chain is 8"; extra lengths list at 10c per foot. Standard finish is polished brass. For **special finishes**, except brushed brass, add 4c list.

MISSION SOCKETS



Cat. No. 463

Cat. No.			List Price	Std. Pkg.	Wt. Lbs.
*443	Keyless Socket,	$\frac{1}{8}$ " Side Bushing	\$0.60	50	20
*444	" "	$\frac{1}{4}$ " " "	.65	50	20
*447	" "	$\frac{1}{8}$ " Top " "	.60	50	20
*448	" "	$\frac{1}{4}$ " " "	.65	50	20
463	Key Socket,	$\frac{1}{8}$ " Side Bushing	\$0.63	50	20
464	" "	$\frac{1}{4}$ " " "	.68	50	20
477	" "	$\frac{1}{8}$ " Top " "	.63	50	20
478	" "	$\frac{1}{4}$ " " "	.68	50	20

The Mission Sockets 443-478 consist of socket cover with shade holder and special porcelain receptacle. The cover constitutes the socket shell, to which a bushing is firmly attached on the side in case of the angle device, and in the cap, in case of the suspension device. It is wired by simply removing the cap. The square embossment at the base of the bushing will seat $\frac{3}{4}$ " square casing. The use of the usual solid brass cube is therefore rendered unnecessary, while the wires lead straight in, instead of through the angular opening of the cube. They are regularly furnished unfinished. For finishes of any kind add 10c list.

*National Electrical Code Standard.

SCHEDULE III DISCOUNTS apply to all materials listed above



Cat. No. 412

TWIN SOCKETS



Cat. No. 455

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
*412	Twin Socket, Fibre-Lined, 1 1/8"	\$0.65	50	8
*452	" " " " 1 1/8"	.70	50	8
*432	" " " " 1 1/8"	.70	50	8
455	Twin Socket, Porcelain-Lined, 1 1/8"	.70	50	14
456	" " " " 1 1/8"	.75	50	14
457	" " " " 1 1/8"	.75	50	14

The Twin Sockets 412-452 are specially adapted for show-case and window lighting in connection with suitable reflectors. Binding screws are readily accessible. They may be furnished in series. For reflectors and fittings see pages 67 and 68. Standard finish is polished brass. For special finishes except brushed brass, add 5c list. The porcelain-lined sockets 455-457 have two receptacles mounted base to base, with binding terminals attached to one, and covered by the other. They are enclosed in cylindrical metal shell with usual bushing on one side. They are particularly adapted for use in damp places, and where high insulation is desired. Standard finish is polished brass. Aluminum may be ordered without change in price.



Cat. No. 4282

SHOW
CASE
FIX-
TURES

Cat. No. 4284-4288

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
4282	2-Light Complete, not wired.	\$2.80	10	6
4284	Socket with Supporting Strap	.80	10	4
4286	Reflector, per foot	1.00	10	3
4288	End Pieces, each	.20	10	1

The Show Case Fixture 4282 has twin socket, reflector, brass stem, and flange, all of which are nickel-plated. Reflector may be rotated for directing the light. Standard height is 26". Additional length stems list at 40c per foot. Fixtures 4284-4288 have continuous nickel-plated brass reflector made in 18" sections telescoping 1/2". Wires are intended to be pressed into beaded edges of reflector from the inside, and looped into porcelain socket shown. The latter may be spaced on reflector as desired, and is held in position by two fibre-lined clips, which also cover binding terminals. Leading-in wires may be run through 5/8" brass tubing attached to the floor by flange. Reflectors measure 3 1/4" in width and are 1 1/2" deep. They are intended for tubular lamps with medium screw base. For nickel-plated flange, add 20c list; for nickel-plated 5/8" tubing, add 40c per foot list. Prices are less wires and lamps.

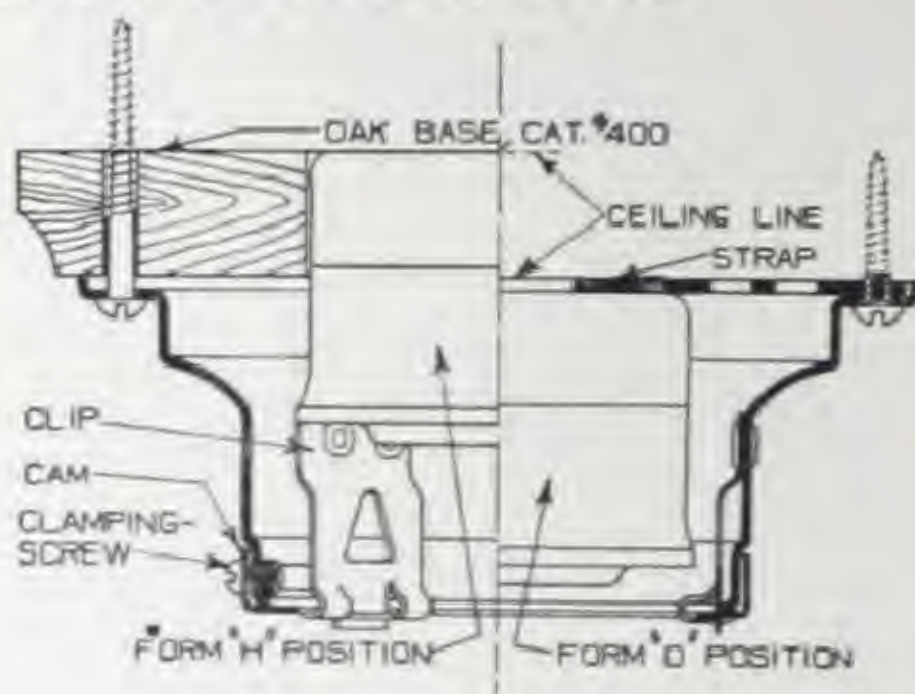
*National Electrical Code Standard.

SCHEDULE III DISCOUNTS apply to all materials listed above

SINGLE UNIT CAR FIXTURES



Cat. No. 2377



Methods of Attaching Fixture

Cat. No.	List Price	Std. Pkg.	Wt. Lbs.
2377 Car Fixture, Form "O"	\$2.00	10	9
2378 " " with Oak Base Block, Form "H" ..	2.40	10	13

Fixtures 2377-2378 are intended for single unit ceiling car fixtures with standard glassware having $2\frac{1}{4}$ " fitter. Shade is securely held in position by a special safety holder, in which the usual holder screws are replaced by three spring clips, forced into engagement by a cam ring. The latter, in turn, is bolted to the casing. It can therefore not jar loose. A 2-piece porcelain receptacle provided with lamp grip secures the lamp against loosening or falling. As shown in the accompanying diagram, the receptacle may be attached in two ways: (1) to a strap; or (2) directly to the car ceiling. Fixtures for form "O" position are regularly furnished with strap. The form "H" position is secured by omitting strap and using oak base block. For car cluster fixtures see page 19. Sockets used are National Electrical Code Standard. Prices are less lamps and glassware.

CAR RECEPTACLES



Cat. No. 61



Cat. No. 6C Receptacle with Cover

Cat. No.	List Price	Std. Pkg.	Wt. Lbs.
61 Wall Receptacle with Lamp Grip	\$0.30	100	25
650 " " " 2 $\frac{5}{16}$ " Pol. Brass Cover ..	.50	100	31
652 " " " 3 $\frac{1}{4}$ " " " " " ..	.60	100	33
6C Receptacle with Bolts and Lamp Grip25	100	16
36256 Steel Plate with 3" Pol. Brass Cover25	100	20
36258 " " " 4" " " " " " ..	.30	100	35

The Receptacle 61 is a 2-piece wall receptacle with concealed binding terminals and lamp grip. It measures $2\frac{5}{16}$ " at the base. It may be furnished with $2\frac{5}{16}$ " close fitting, or $3\frac{1}{4}$ " large brass cover. Supporting screw holes are spaced $1\frac{3}{4}$ " on centers. Receptacle 6C with cover is especially adapted for car lighting where the socket or receptacle is desired practically flush with the surface. It is particularly serviceable for attaching to outlet boxes where conduit is used. As indicated on page 61, device is furnished with lamp grip. Covers are supplied for either 3" or 4" outlet boxes. They consist of steel plate to which receptacle is attached, and brass cover fastened to the plate by two screws.

SCHEDULE III DISCOUNTS apply to all materials listed above

OUTLET BOX RECEPTACLES



Cat. No. 6B



Cat. No. 6C



Cat. No. 6D

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
*6B	Receptacle with Bolts	\$0.17	100	16
6C	" " " and Lamp Grip	.25	100	16
6D	" " " " " " "	.25	100	18

The Receptacles 6B-6C are especially designed for outlet boxes. Their binding terminals do not project beyond the porcelain walls, therefore cannot ground on the metal parts of the box or conduit. Wires are easily spread around the base, making slack wire unnecessary. Nos. 6C and 6D have **lamp grip and spring center contact**. No. 6D has clip terminals in the cavities of the rear, adapted for soldering and cementing on the job. No metal parts are therefore left exposed. For No. 6D less **lamp grip** deduct 8c list. Supporting screw holes are spaced $1\frac{3}{4}$ " on centers.

OUTLET BOX COVERS



Cat. No. 3623



3" Outlet with 3623B Cover



Cat. No. 36245

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
3623	Steel Plate only for 3" Outlet Box	\$0.10	100	15
3624	" " " " 4" " "	.12	100	17
3623B	" " with 3" Pol. Brass Cover	.20	100	17
3624B	" " " 4" " " "	.25	100	30
36235	Steel Plate with 3" Pol. Brass Cover, $2\frac{1}{4}$ " Holder, Form "O"	.30	100	20
36245	Steel Plate with 4" Pol. Brass Cover, $2\frac{1}{4}$ " Holder, Form "O"	.35	100	33
36233	Steel Plate with 3" Pol. Brass Cover, $2\frac{1}{4}$ " Holder, Form "H"	.40	100	22
36243	Steel Plate with 4" Pol. Brass Cover, $2\frac{1}{4}$ " Holder, Form "H"	.45	100	36
36238	Steel Plate with 3" Pol. Brass Cover, $3\frac{1}{4}$ " Holder, Form "A"	.45	100	24
36248	Steel Plate with 4" Pol. Brass Cover, $3\frac{1}{4}$ " Holder, Form "A"	.50	100	28

*National Electrical Code Standard.

SCHEDULE III DISCOUNTS apply to all materials listed above

SIGN RECEPTACLES



Cat. No. 6



Cat. No. 6T

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
*6	Sign Receptacle with Bolts	\$0.17	100	20
6T	" " " "	.17	100	18

The Sign Receptacles 6 and 6T are designed for attaching to sheet metal surfaces. They have exposed binding terminals accessible from the rear. In No. 6T they are depressed, making it possible to solder and cement the wires after connecting. Supporting screw holes are spaced $1\frac{3}{4}$ " on centers.

DROP CORD SOCKETS



Cat. No. 240



Cat. No. 241

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
240	Drop Cord Socket	\$0.25	100	26
241	" " " " with Lever	.30	100	26

The Drop Cord Socket 240 is a one-piece porcelain pendent socket with threaded bushing constituting the cap. It is provided with back connections lying in the cavity covered by the cap. The latter, in combination with a projection on the porcelain, forms an effective cord grip, making it unnecessary to use other strain relief means. Outside positioning offsets for attaching reflectors make it possible to use smaller lamps by simply shifting the reflector from the lower to the upper position; likewise admit changing of light distribution without changing the reflector. The bushing has a $\frac{1}{8}$ " opening for accommodating re-enforced cord, but will also grip individual wires in ordinary cord. Cat. No. 241 has no positioning offsets, but is furnished with quick-break lever switch. For shade holders adapting sockets for use with ordinary reflectors, see page 69.

* National Electrical Code Standard.

SCHEDULE III DISCOUNTS apply to all materials listed above



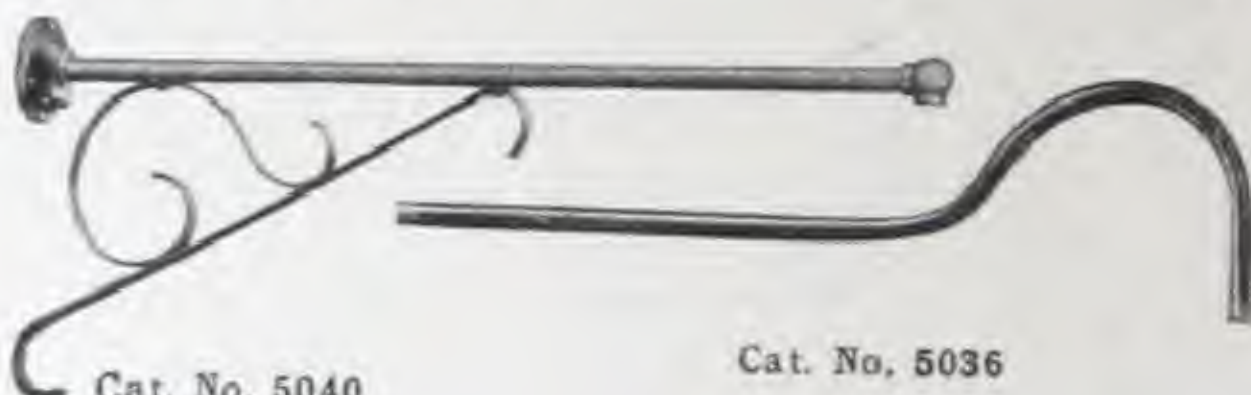
SCHEDULE IV
FIXTURE ACCESSORIES



GALVANIZED WEATHER-PROOF FITTINGS



Cat. No. 6008



Cat. No. 5040

Cat. No. 5036

NIPPLES—GOOSENECKS—BRACKETS

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
6008	Iron Pipe Stem, $\frac{1}{2}$ " x 8"	\$0.25	20	10
5036	" Gooseneck, $\frac{1}{2}$ " x 30"	.60	20	46
5037	" " $\frac{3}{4}$ " x 40"	.90	20	110
5038	Bracket with Fitting (No. 5031), less Brace, $\frac{3}{4}$ " x 40"	1.50	20	110
5040	" " " (No. 5031), and Lower Brace, $\frac{3}{4}$ " x 40"	2.60	20	140
5042	Bracket with Fitting (No. 5031), and Double Brace, $\frac{3}{4}$ " x 40"	3.70	20	170



Cat. No. 6180



Cat. No. 6182

MAST ARMS—SUSPENSION FITTINGS

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
6180	Mast Arm with Fitting (No. 5031), Chains and Attaching Terminals, $\frac{3}{4}$ " x 36"	\$2.40	20	164
6182	3-Point Center Suspension, Slips $\frac{1}{2}$ " Pipe	1.20	20	75



Cat. No. 6202



Cat. No. 6204



Cat. No. 6206

CROSS ARMS—SUSPENSION FITTINGS

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
6200	Cross Arm less Shock Absorber, tapped $\frac{1}{2}$ "	\$0.80	20	26
6202	" " with " " $\frac{1}{2}$ "	.90	20	28
6204	4-Point Center Suspension, Porcelain Wire Openings, $\frac{1}{2}$ "	1.30	20	40
6206	Span Wire Suspension, Slips $\frac{5}{8}$ " Bolt	.50	20	21

SCHEDULE IV DISCOUNTS apply to all materials listed above

WEATHER-PROOF FITTINGS



Cat. No. 6029



Cat. No. 6031



Cat. No. 6028C

SUSPENSION FITTINGS—CONNECTING BLOCKS

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
6029	Suspension Fitting less Shock Absorber, $\frac{1}{2}$ "	\$0.30	20	16
6030	" " with Shock Absorber, $\frac{1}{2}$ "	.40	20	17
6031	" " with Porcelain Wire Openings, $\frac{1}{2}$ "	.60	20	10
6028C	Suspension Connecting Block, $\frac{1}{2}$ "	1.00	20	10



Cat. No. 5025



Cat. No. 6184



Cat. No. 5026

POLE AND WALL FITTINGS—EXTENSION FITTINGS

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
5025	Pole Fitting, Malleable Iron, $\frac{1}{2}$ "	\$0.30	20	16
5026	Wall " " " $\frac{1}{2}$ "	.30	20	8
6184	Hexagon Extension Fitting, $\frac{1}{2}$ " x $\frac{1}{2}$ "	.15	20	2



Cat. No. 5027



Cat. No. 6186



Cat. No. 5031

POLE FITTINGS—BALL FITTINGS

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
5027	Pole Fitting less Wire Openings, $\frac{3}{4}$ "	\$0.40	20	27
5028	" " " " $\frac{1}{2}$ "	.40	20	27
5031	" with Porcelain Wire Openings, $\frac{3}{4}$ "	.60	20	30
5032	" " " " $\frac{1}{2}$ "	.60	20	31
6186	Ball Fitting, $\frac{3}{4}$ " x $\frac{1}{2}$ "	.30	20	10

SCHEDULE IV DISCOUNTS apply to all materials listed above

FLANGES—SOCKET RINGS



Cat. No. 3800



Cat. No. 3223



Cat. No. 3850



Cat. No. 10

Cat. No.	STEEL FLANGES—TAPPED $\frac{3}{8}$ "				List Price	Std. Pkg.	Wt. Lbs.
3800	Fl. $2\frac{1}{2}$ "	for Type 8 Clusters			\$0.05	10	1
3200	" 3"	" " 2, 3, 1, and 1K Clusters			.05	10	1
3100	" 4"	" " 3T, 1, and 7 Clusters			.05	10	2

STEEL FLANGES—FOR OUTLET BOXES

3223	Fl. for Types 8, 2, and 3,	3" Outlet Box			\$0.15	10	2
3224	" " " "	4" " "			.15	10	3
3123	" " 1, 7, " 3T,	3" " "			.15	10	3
3124	" " " "	4" " "			.15	10	3

CAST IRON FLANGES—FOR W. P. FIXTURES—TAPPED $\frac{1}{2}$ "

3850	Fl. $2\frac{1}{2}$ "	for Type 8 Clusters			\$0.15	10	2
3250	" 3"	" " 2 and 3 Clusters			.15	10	3
3150	" 4"	" " 1, 7, and 3T Clusters			.15	10	5
3175	" 4" tapped $\frac{3}{4}$ "	for Types 1, 7, and 3T			.15	10	6

PORCELAIN SOCKET RINGS

10	Porcelain Socket Ring for Benjamin Wireless Clusters and Plug Clusters only				\$0.05	50	2
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The Steel Flanges 3800, 3200, and 3100 are regularly furnished free of charge with the cluster bodies indicated above. Where Nos. 3223, 3224, 3123, and 3124, used with outlet boxes, or the weatherproof cast iron flanges, Nos. 3850, 3250, 3150, and 3175 are specified in their stead, an additional charge of 10c list will be made. Where flanges only are ordered, the prices given above apply. All are galvanized, but may be ordered black enamel without change in price.

HALF SHADES



Cat. No. 272



Cat. No. 282



Cat. No. 21

Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
272	Twin Half Shade, Nickel-Plated	\$1.00	50	25
282	" " " " with Stem Opening	1.00	50	25
21	Half Shade, Nickel-Plated	.80	50	8

The Nickel-Plated Half Shades 272-282 are especially adapted for use with Benjamin twin sockets in showcase and window lighting, with angle, twin, or rotating sockets, and tubular lamps.

SCHEDULE IV DISCOUNTS apply to all materials listed above

CANOPIES—FITTINGS



Cat. No. 3170



Cat. No. 3320

Cat. No.	CANOPIES			List Price	Std. Pkg.	Wt. Lbs.
3170	Polished Brass,	4 1/2" x 2 1/2",	5/8" Slip	\$0.30	20	2
3174	"	4 1/2" x 2 1/2",	3/4" "	.30	20	2
3320	"	4 1/2" x 4",	5/8" "	.45	20	4
3325	"	4 1/2" x 4",	3/4" "	.45	20	4

The Low Canopies 3170 and 3174 are regularly supplied with the wireless cluster fixtures listed on page 17, where no insulating joint is specified. Where insulating joint is used, the deep canopies 3320 and 3325 are required.



Cat. No. 351



Cat. No. 353

Cat. No.	STEMS—BRASS TUBING			List Price	Std. Pkg.	Wt. Lbs.
351	Stem,	3/8" Pol. Brass Tubing, threaded,	8"	\$0.30	20	4
352	"	3/8" Ir. Pipe, 3/4" Pol. Brass Casing,	8"	.50	20	10
355	"	1 1/2" " " " " " "	12"	.70	20	20
Additional lengths list at 30, 50, and 70c per foot respectively.						
353	Tubing,	Pol. Brass, 5/8",	per foot	\$0.39	20	27
354	"	Nickel-Plated, 5/8",	per foot	.40	5-ft. lgth.	



Cat. No. 194



Cat. No. 180



Cat. No. 460



Cat. No. 470



Cat. No. 1450



Cat. No. 1950

Cat. No.	T-CLAMPS—ELBOWS			List Price	Std. Pkg.	Wt. Lbs.
460	Polished Brass T, for	3/8" Brass Tubing		\$0.35	20	4
461	Nickel-Plated T, "	3/8" " "		.40	20	4
470	Polished Brass L, "	3/8" " "		.30	20	3
471	Nickel-Plated L, "	3/8" " "		.35	20	3

NIPPLES—FLANGES

180	Nipple, Pol. Brass,	1/2" x 3/4"	\$0.12	50	1
181	" Nickel-Plated,	1/2" x 3/4"	.15	50	1
194	Flange, Pol. Brass,	1/2" x 1 1/4"	.08	50	1
196	" Nickel-Plated,	1/2" x 1 1/4"	.10	50	1

CROWFEET—HICKEYS

1950	Crowfoot, Mal. Iron, for	3/4" Iron Pipe	\$0.05	100	14
1955	"	1/2" " "	.10	100	8
1450	Hickey,	1/2" x 3/4"	.15	100	8
1455	"	1/2" x 1/2"	.20	100	18

SCHEDULE IV DISCOUNTS apply to all materials listed above

SHADE HOLDERS



Cat. No. 2444



Cat. No. 2451



Cat. No. 2450

Cat. No.			List Price	Std. Pkg.	Wt. Lbs.
2440	Shade Holder, 2 $\frac{1}{4}$ "	Form "O"	\$0.15	100	3
2442	"	2 $\frac{1}{4}$ " " "H"	.25	100	4
2444	"	3 $\frac{1}{4}$ " " "A"	.30	100	5
2450	"	2 $\frac{1}{4}$ " " "O"	.15	100	3
2451	"	2 $\frac{1}{4}$ " " "H"	.25	100	4
2455	"	3 $\frac{1}{4}$ " " "A"	.30	100	5

The Shade Holders 2440-2444 are designed for adapting the drop cord sockets listed page 62, for use with ordinary shades and glassware. The top opening measures 2 $\frac{1}{2}$ ". Nos. 2450-2455 are used with Benjamin Wireless Clusters. They are held in position by an insulating socket ring. Top openings measure 2 $\frac{1}{2}$ ". All above holders are ventilated. Standard finish is polished brass.



Cat. No. 2470



Cat. No. 2490



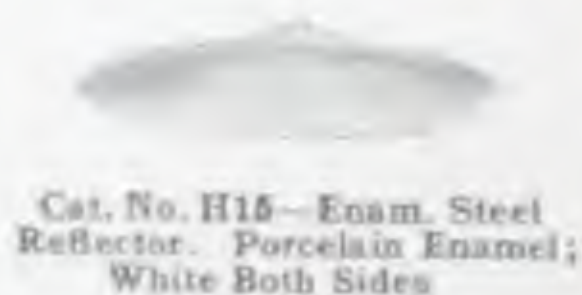
Cat. No. 2496

Cat. No.			List Price	Std. Pkg.	Wt. Lbs.
2470	Shade Holder, 2 $\frac{1}{4}$ "	$\frac{5}{8}$ " Slip	\$0.25	100	5
2475	"	2 $\frac{1}{4}$ " $\frac{3}{4}$ " "	.25	100	5
2490	"	3 $\frac{1}{4}$ " $\frac{5}{8}$ " "	.35	100	12
2495	"	3 $\frac{1}{4}$ " $\frac{3}{4}$ " "	.35	100	12
2496	"	4" $1\frac{1}{16}$ " "	.50	100	20

The Shade Holders 2470-2496 are designed for supporting shades with 2 $\frac{1}{4}$ ", 3 $\frac{1}{4}$ ", and 4" fitter. They are made with both $\frac{3}{4}$ " and $\frac{5}{8}$ " slip, except No. 2496, which has $1\frac{1}{16}$ " slip, and is intended for use with $\frac{3}{8}$ " iron pipe. Standard finish on the latter is black; on all others, polished brass.

SCHEDULE IV DISCOUNTS apply to all materials listed above

REFLECTORS



Cat. No.		List Price	Std. Pkg.	Wt. Lbs.
TN114	Tin, 14" for Type 1, 7, or K Cluster.....	\$0.60	20	14
TN214	Tin, 14" for Type 2 Cluster.....	.60	20	14
TN116	Tin, 16" for Type 1, 7, or K Cluster.....	.70	20	16
A812	Aluminum, 12" for Type 8 Cluster.....	\$1.20	20	8
A114	Aluminum, 14" for Type 1, 7, or K Cluster.....	1.60	20	9
A214	Aluminum, 14" for Type 2 Cluster.....	1.60	20	9
A116	Aluminum, 16" for Type 1, 7, or K Cluster.....	2.00	20	12
H813	Enam. Steel, 13" for Type 8 Cluster.....	\$1.40	20	23
H115	Enam. Steel, 15" for Type 1, 7, or K Cluster.....	1.80	20	25
H215	Enam. Steel, 15" for Type 2 Cluster.....	1.80	20	25
H118	Enam. Steel, 18" for Type 1, 7, or K Cluster.....	2.00	20	28

For 16" and 18" reflectors for Type 3T Cluster, see
page 26.

M812	Mirror, 12" for Type 8 Cluster.....	\$1.10	20	30
M114	Mirror, 14" for Type 1, 7, or 1K Cluster.....	1.40	20	46
M214	Mirror, 14" for Type 2 Cluster.....	1.40	20	46
M116	Mirror, 16" for Type 1, 7, or 1K Cluster.....	1.80	20	47
M216	Mirror, 16" for Type 2 Cluster.....	1.80	20	53
M218	Mirror, 18" for Type 2 Cluster.....	2.20	20	65

The above groups of special metallic reflectors fit the
cluster back, and require no holder. When used with
ceiling fixtures, they are placed between the cluster and
ceiling; used with pendent fixtures, between the cluster
and flange.

H10	Enam. Steel, 10", tapped $1\frac{1}{2}$ "	\$1.00	20	13
H15	" " 15", " $1\frac{1}{2}$ "	2.00	20	32
H18	" " 18", " $1\frac{1}{2}$ "	2.50	20	43
H20	" " 20", " $1\frac{1}{2}$ "	3.00	20	63
H24	" " 24", " $1\frac{1}{2}$ "	4.00	20	80
P512	Opal, 12" x $2\frac{1}{4}$ "	\$0.50	48	55
P514	" 14" x $3\frac{1}{4}$ "	.60	48	64
P516	" 16" x $3\frac{1}{4}$ "	.90	36	60

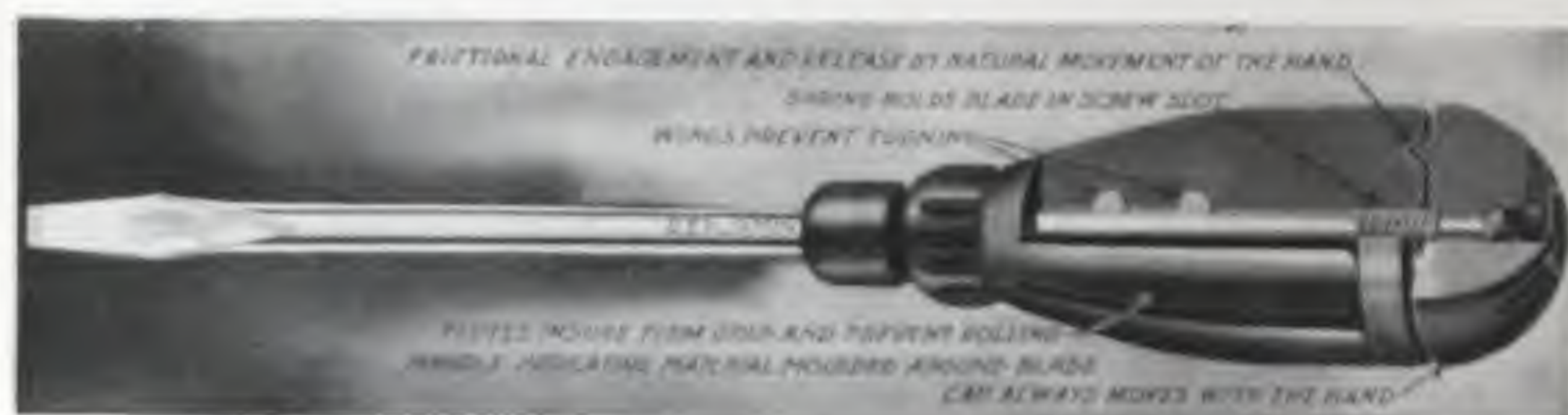
SCHEDULE IV DISCOUNTS apply to all materials listed above



SCHEDULE
V

NO CHAFED OR BLISTERED SKIN

FRICTION DRIVE SCREW DRIVERS



Benjamin Friction Drive Screw Drivers meet the demand for a moderate priced tool, combining the advantages of the ordinary and the ratchet drivers without the attending disadvantages of the latter.

The "Friction Drive" is the most important feature in screw driver construction of recent years.

The Frictional Surfaces between the cap and the handle engage with the ordinary working pressure used in driving the screw. The spring in the handle releases the friction when the pressure is released on the reverse movement, and the hand with the cap is returned without backing the screw.

The Spring maintains a slight constant pressure on the screw, thus holding the blade firmly in the slot.

The Free Swivel Connection between the cap and handle makes it easy to drive machine or other free running screws rapidly by the simple operation of the thumb and fingers.

For All One Hand Work this screw driver is without equal. The blade is always held firmly in the slot while returning the hand, making it easy to reach difficult places, and saving time and energy.

The Rotating Cap always moves with the hand, and does not chafe or rub the skin like the old type of driver.

This Driver Is Always Ready. It will drive screws in either direction without adjustment. There are no ratchet teeth, dogs or other parts to get out of order and create trouble. It will withstand the roughest legitimate uses to which any screw driver might be subjected.

Cat. No.	Handle	Length Blade	Std. Price	List Price (Per doz.)
A330	3 1/2"	3"	12	\$4.50
A340	4 1/2"	4"	12	5.00
A350	5 1/2"	5"	12	5.50
A360	6 1/2"	6"	12	6.00
A380	8 1/2"	8"	12	7.00
A430	3 1/2"	3"	12	5.00
A440	4 1/2"	4"	12	5.50
A450	5 1/2"	5"	12	6.00
A460	6 1/2"	6"	12	6.50
A480	8 1/2"	8"	12	7.00

Friction Drive Screw Drivers are put up six (6) in a box. They are sold in unbroken boxes only. Standard package consists of twelve (12) of one catalog number or assorted. Schedule V discounts apply.

FRICTION DRIVE SCREW DRIVERS



Cat. No. E330

ELECTRICIAN'S INSULATED BLADE

Cat. No.	Diam. Blade	Length Blade	Std. Pkg.	List Price Per doz.
E330	$\frac{3}{16}$ "	3"	12	\$7.20
E360	$\frac{3}{16}$ "	6"	12	9.60

The Friction Drive Screw Drivers E330-E360 have a crucible tool steel blade, all of which, except the point, is covered with a tough, hard rubber tubing. Both blade and tubing are solidly moulded into the handle. The insulated portion of the blade is $\frac{3}{8}$ " in diameter. Reliable break-down tests at the weakest point show a rupture at 11,000 volts. The steel is perfectly tempered and the device finely finished throughout.



Cat. No. C330

CABINET—STRAIGHT BLADE

Cat. No.	Diam. Blade	Length Blade	Std. Pkg.	List Price Per doz.
C330	$\frac{3}{16}$ "	3"	12	\$4.50
C340	$\frac{3}{16}$ "	4"	12	5.00
C350	$\frac{3}{16}$ "	5"	12	5.50
C360	$\frac{3}{16}$ "	6"	12	6.00
C380	$\frac{3}{16}$ "	8"	12	7.00

The Friction Drive Screw Drivers C330-C380 are designed for use where small screws are to be driven in countersunk holes which are no larger than the screw head. The blade is straight; is $\frac{3}{16}$ " in diameter throughout the entire length, and will follow up a screw even where deeply countersunk without injuring the woodwork.

Friction Drive Screw Drivers are put up six (6) in a box. They are sold in unbroken boxes only. Standard package consists of twelve (12) of one catalog number or assorted. Schedule V discounts apply.

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